



Battery-Powered Micro-Mobility Rules and Regulations

Yes, before you ask, electric bikes (e-bikes) are legal in Canada and so too are electric scooters (e-scooters), under certain conditions. On February 4th, 2021 Transport Canada repealed its definition of Battery-Powered Micro-Mobility (BPMM) leaving it up to each province and territory to define the different types of e-bikes and micro-mobility devices permitted, and to put in place rules governing users.^[1] Despite the national patchwork of rules and regulations, there are a lot of similarities among jurisdictions. Read on to better prepare yourself for becoming a BPMM owner/operator.

Background

You might know them as e-bikes but they are also recognized by a number of different names:

- Assist bicycle
- Motor-assisted cycle/bicycle
- Electric bicycles
- Power-assisted bicycles (PABs)
- Pedal electric bicycles
- Power bicycles
- Electric motor driven cycle

'Power-assisted bicycle' (PAB) and 'assist bicycle' are terms commonly used in the Government of Canada's lexicon and they too have specific rules for the operation of BPMM devices on federally owned lands. For example, all e-bikes and scooters with accelerators or throttles are prohibited on trails and beaches in the Pacific Rim National Park Reserve.

Similarly, provincial parks may also subscribe to their own rules. Best to check with each specific park you plan to visit to avoid facing disappointment at the gate.

To add to the confusion, some cities and municipalities have restrictions which may prevent particular e-bike types from being used on certain streets, lanes or trails.

Thankfully, there are many commonly-shared rules that make navigating jurisdictions a bit easier. Consider the following:

- The motor of a pedal assist e-bike must not generate more than an output of 500 watts
- Maximum assisted speed is restricted to 32 kilometers per hour (km/h) and the power assistance must stop when the speed reaches 32km/h
- E-bikes must possess handlebars designed for steering and pedals designed for propulsion by the operator
- All users must wear appropriate head protection (bike or motorcycle helmet),
- The attached motor must be powered by electricity - an attached gasoline engine is prohibited
- Manufacturer labels must be affixed to the device to prove it meets specific provincial and federal requirements



- The device cannot be powered strictly by battery and must have option for human propulsion
- When the operator stops pedalling, the electric assist motor must disengage

E-bike users are also typically required to follow cycling regulations, which include riding on the right side of the road, no riding under the influence of drugs or alcohol, stopping for stop signs and red lights, signalling turns, and yielding to traffic that has the right-of-way.[2]

E-scooters or electric kick-scooters, while not covered in depth in this document, also bring with them conditions of use that vary by jurisdiction. For example, Ontario limits the maximum speed of an e-scooter to 24 km/h as opposed to 32 km/h for e-bikes and under a pilot program running till November 27, 2024, are permitting municipalities to choose where and how e-scooters may be used. Quebec is similarly in the midst of a three-year pilot study concerning the use of motorized personal mobility devices such as e-scooters and gyroscopic vehicles.[3]



Rules and regulation in Canadian provinces/territories

Alberta

Operation rules: In Alberta, e-bike riders must ride as far to the right on streets as possible and there is no passenger permitted if the operator of the device is under 16 years of age. There are no limits to the weight of the device but they cannot travel on less than two wheels or more than three wheels in contact with the ground. In addition, e-scooters are considered motor vehicles in Alberta, as defined by the *Traffic Safety Act*; they also meet the definition of "miniature vehicles" which are not permitted on a highway.

Helmet: Approved motorcycle helmet

Age restriction: 14 years of age

License or Registration: Not required

Insurance: Not required

Label: Not stated

British Columbia

Operation rules: In BC, e-bike riders are subject to the same rights and duties as the driver of a vehicle such as obeying all traffic lights and control devices. Bicycle safety rules must also be followed. Other regulations include wheels being a minimum of 350mm in diameter. In this province you may get a ticket under the *Motor Vehicle Act* if you ride unsafely or ride a cycle or device that is not allowed on public roads or sidewalks.

Helmet: Required

Age Restriction: 16 years of age

License or Registration: Not required

Insurance: Not required

Label: Does not apply

Manitoba

Operation rules: In Manitoba, e-bikes are defined under the *Highway Traffic Amendment Act* as "power assisted bicycle." The Act follows the aforementioned "commonly-shared rules" from this document. Other specifications for e-bikes include not traveling on more than three wheels in



contact with the ground; device needs to have an electric motor but no other type of motor; device bears a permanent manufacturer's label stating that the vehicle is a power-assisted bicycle under the *Motor Vehicle Safety Regulations*, C.R.C., c. 1038; and has either a mechanism to turn the electric motor on and off that can be operated by the driver, or a mechanism that prevents the motor from engaging until the vehicle is traveling at 3 km/h or more.

Helmet: Required

Age Restriction: 14 years of age

License or Registration: Not required

Insurance: Not required

Label: Not stated

License or Registration: Not stated

Insurance: Not stated

Label: Not stated

Nova Scotia

Operation rules: In Nova Scotia, e-bikes are allowed to operate on all roads but riders must stay on the right side of the road, within one meter of the edge of the curb. Devices should have two to four wheels with one wheel being at least 350mm in diameter. E-bikes are not considered "motor vehicles" and, therefore, do not need to meet the conditions specified in the *Canadian Motor Vehicle Safety Regulations* for motorcycles.

Helmet: Required

Age restriction: Not stated

Registration or license: Not required

Insurance: Not stated

Label: Not stated

New Brunswick

Operation rules: In New Brunswick, if the vehicle is able to be powered by human force and has a motor equal to or less than 500W, and the motor is not capable of assisting when the vehicle is traveling at a speed greater than 32 km/h, then it can be considered a bicycle and all the requirements placed on bicyclists are applicable. E-bikes are further regulated by individual municipalities within New Brunswick and may not be permitted on provincial highways.

Contact your local municipality for details or reach out to New Brunswick's Justice & Public Safety Department ([506-453-2410](tel:506-453-2410)) for clarification.

Helmet: Required

Age restriction: Determined by Municipality

Registration or license: Determined by Municipality

Insurance: Determined by Municipality

Label: Determined by Municipality

Ontario

Operation rules: In Ontario, you can ride an e-bike on most roads and highways where conventional bicycles are permitted, with some exceptions such as the 400-series controlled access highways and the Queen Elizabeth Way in Toronto. Other regulations include a maximum weight of 120kg for the bike and battery, a minimum wheel width of 35mm and a minimum wheel diameter of 350 mm. It is also illegal in this province to modify your e-bike electric motor to make it more powerful or to increase the assistance offered by the bike's motor.

Helmet: Require

Age restriction: 16+ years of age

Registration or license: Not required

Insurance: Not required

Label: Not required

Newfoundland and Labrador

Operation rules: In Newfoundland and Labrador, e-bike riders must follow the same rules of the road as regular cyclists.

Helmet: Required

Age Restriction: 18+ year of age (Require permit if aged between ages 14-17)

Prince Edward Island

Operation rules: In PEI, e-bike riders are required to follow the same rules of the road as regular cyclists. Additional regulations include a maximum weight of 120kg for the bike and battery, two or three wheels being in contact with the ground and a minimum wheel diameter of 406.4mm.



Helmet: Required

Age restriction: 16+ years of age

Registration or license: Not required

Insurance: Not required

Label: Not required

Quebec

Operation rules: In Quebec, riders must obey the rules that apply to all cyclists, including the *Highway Safety Code* and the obligation to wear a helmet. You must adopt safe practices, including riding at a safe and reasonable speed, as well as have two or three wheels touching the ground at all times. You may cycle on all public roadways, except on highways and their access and exit ramps.

Helmet: Required

Age restriction: 18+ years of age with the below exception

Registration or license: People aged 14 to 17 who hold a Class 6D (moped or scooter) license are authorized to ride an electric bike

Insurance: Not stated

Label: Not required

Saskatchewan

Operation rules: In Saskatchewan, e-bike users must follow all the rules under *The Traffic Safety Act* that apply to a vehicle; and follow the municipal laws while operating an e-bike. E-bike riders in this province are also required to follow the same rules of the road as regular cyclists. Stickers identifying the bicycle's compliance with the Federal classification may be required by some cities or municipalities.

Helmet: Bicycle or motorcycle helmet approved by Canadian Standards Association (CSA)

Age Restriction: 14 years of age

Registration or License: Not required

Insurance: Not required

Label: Required

Yukon, Nunavut and the Northwest Territories

Operation rules: Canadian Territories follow federal legislation for the operation of e-bikes.

E-bike riders also must follow the same rules of the road as regular cyclists.

Helmet: Required

Age Restriction: 16+ years of age

Registration or License: Not required

Insurance: Not stated

Label: Not stated

The final word

As you can see, most jurisdictions subscribe to similar rules, with some exceptions. Given the rapid growth in the uptake of BPMM, it may make sense to routinely check for updates with local authorities.

Unless you are embarking upon a magical cross-Canada journey with your e-bike or e-scooter, you should have little problem reaching out to the one or two appropriate local regulatory authorities to determine conditions under which you may ride your BPMM device.

Get familiar with your local e-bike dealer/store as they can be a wealth of valuable knowledge to help ease you into BPMM ownership and advise you on regulatory changes, routine maintenance and repair. Chat with other BPMM users to benefit from their experiences and knowledge and don't forget to ask some very important questions:

- What is the legal age in my jurisdiction to operate a BPMM device?
- Do I need an operator's licence or permit?
- Do I need to register my device with authorities?
- Where can I legally operate my BPMM?
- Does my BPMM device fit into the appropriate motor size/weight/speed/wheel width/diameter categories as outlined by authorities?
- Are my battery and electric motor securely fastened to the e-bike frame?
- Are all electrical terminals properly insulated and secure?
- How fast can I travel with my BPMM device?



- Is my BPMM device capable of being propelled by muscular power? (i.e., pedals)
- Am I required to have insurance on my BPMM?
- What safety equipment am I obligated to wear? (Helmet, face shield, knee/elbow pads?)
- What additional equipment am I obligated to have on my BPMM? (Headlamp, tail lamp, reflectors, brakes, horn, side mirror)
- Can I carry a passenger or cargo and if so, under what conditions?
- Do I need a visible permanently affixed manufacturer's label on my BPMM?
- Do I need a mechanism that prevents the motor from engaging before the e-bike attains a specific speed? (i.e., 3 km/h)

Once you get past the regulatory hurdles, you will be free to venture into the wonderful world of e-bike travel.

Given that you may be sharing paths and roadways with other users, it is prudent to keep personal and pedestrian safety in mind.

With the wind in your hair and bugs in your teeth, you will be making wonderful memories in no time with friends, family or on solo adventures.

Every effort was made to ensure the accuracy of statements in this document at time of writing. For your own safety and peace of mind, please confirm information with the appropriate authorities in your jurisdiction.

References:

- [1] <https://tc.canada.ca/en/road-transportation/importing-vehicle/importing-non-regulated-vehicles>
- [2] <https://canadasafetycouncil.org/safe-cycling-is-not-just-for-kids/#:~:text=Cyclists%20like%20motorists%20must%20ride,laws%20cover%20specific%20safety%20issues.>
- [3] <https://saaq.gouv.qc.ca/en/saaq/documents/pilot-projects/motorized-mobility-devices>
- [4] Alberta - <https://open.alberta.ca/dataset/d66a9083-ffd6-44c9-9547-ed2afdccee78/resource/43172645-6d54-4f86-a9f1-27860bed2ec1/download/tran-riders-guide-2023-04.pdf>
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- [12] Quebec - <https://saaq.gouv.qc.ca/en/road-safety/modes-transportation/electric-bike>
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- [14] Yukon, NT, Nunavut - <https://ebikebc.com/pages/ebike-regulations-in-yukon-nt-and-nunavut>

About us: The Canadian Coalition for Green Health Care is Canada's premier green health care resource network and is leading the evolution of green in Canada's health sector as a national voice and catalyst for environmental change. Collaboratively, we strive to reduce health care's ecological impact from compassionate care delivery while providing a platform upon which to discuss and promote best practices, innovation, environmental responsibility and climate change resiliency. www.greenhealthcare.ca

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