EBike Policy 2022

Changes as of May 2022 - New NMTBC E-Bike Policy

Ebike/E-MTB's Definition:
This definition will be used by NMTBC in its literature, documents and notices.

Under the law to be considered a "power assisted bicycle" its primary means of propulsion is from pedal power and has auxiliary motor(s) of up to 300W output, either through pedal assist or throttle control.

An output of greater than 300w and/or not having pedals is considered a low powered vehicle, and excluded from NMTBC policy.

Policy

- NMTBC considers a "power assisted bicycle" as an "E-bike/E-MTB"; where - for an able bodied rider without the need for accessibility requirements - has a pedal assist auxiliary motor providing upto 300w of supportive power. The bike shall be designed and constructed in a durable manner for safe use in its intended purpose.

- E-MTB's for the purpose of the club, its advocacy and trail use are considered to be the same as Mountain Bikes as far as the land ownership allows

- E-MTB riders should be aware of their difference in trail speed and consider the following etiquette while riding:
- Communicate
- Be courteous
- Make your presence known
- Communicate an agreeable safe place to pass

Background Summary

Nelson Mountain Bike Club pre-May 2022 Policy on Motorised Bicycles:

1. All motorised bicycles are not mountain bikes and should be treated differently. 2. We support the use of motorised bicycles up to 300 watts on NMTBC trails, if the land manager has given permission.
3. Motorised bicycles over 300 watts are treated as motorbikes and banned on mountain bike trails on HFM/AFM forestry mountain and DoC land. Nelson City Council has been consulted and has indicated that it too follows this definition in relation to access to mountain bike trails on its land.
4. NMTBC will not actively advocate trail access for motorised bicycles.
5. NMTBC members should only use motorised bicycles of less than 300 watts. Use of motor bikes of higher watts could jeopardise access for all members/ mountain bikes to some areas/ trails.

NMTBC (the club) developed a report on motorised bikes July 2016 (T. Easton)

The majority of the report is still accurate and relevant.

- NZTA/Waka Kotahi have not revised the definitions of LPV (Definitions listed below) - DoC policy/guidelines remain unchanged since 2015* , however there is currently a revision of their CMS and NPMP being undertaken.
- *DoC policy within National Parks stipulates that motorised bicycles *are* considered “powered vehicles” and only permitted on formed roads (General policy for National Parks 2005). National Parks have their own bylaws, currently Abel Tasman NP and Kahurangi NP do not permit motorised bikes (Yes, the heaphy and Kill Devil!)
- Tongariro NPMP was amended in 2016 to consider E-bikes “It is appropriate that e-bikes be permitted on all tracks for which mountain bikes are permitted (refer to Map 10 Access and Facilities), on the basis that effects on other users, park values and the environment are negligible.” (New section 4.3.2.12A)
- IMBA have updated their policy in 2019 to support trail advocacy for “Class 1 EMTB’s” A class 1 EMTB is essentially what we know as an E-bike.

https://www.imba.com/education/emtb

“**CLASS 1:** A “class 1 electric bicycle,” or “low-speed pedal-assisted electric bicycle,” is a bicycle equipped with a motor that provides assistance only when the rider is pedalling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.”

Disclaimer - NMTBC is a volunteer run organisation. We have researched to the best of our abilities the Law, Bylaws, DoC Policy, Land Conservation Strategies, IMBA, MTBNZ and stakeholder positions. If you feel there has been an omission or eversight, please contact the club to help our understanding info@nelsonmtb.club.

Context, Resources and Links

The First Electric bike was patented in 1895 to Ogden Bolton Jr
In 2023 E-bike sales are expected to reach 40 Million units sold worldwide generating approximately $20 Billion USD in revenue.
(https://www.statista.com/statistics/674381/size-global-market-electric-bicycles/) The recent global pandemic has seen the sales of all bicycles dramatically increase, with e-bikes being the largest growth sector. During 2021 a report by NPD “In the most recent 12 months, compared to two years ago, sales of mountain bikes increased 70%, children’s bikes rose 57%, and e-bikes grew by a whopping 240%, which made it the third largest cycling category in terms of sales revenue. This number is remarkable because it makes e-bikes a larger category than road bikes” (https://www.npd.com/news/blog/2021/the-cycling-market-pedals-ahead-in-2021/)
https://www.forbes.com/sites/timnewcomb/2020/08/19/specialized-seeing-exponential-growth-as-mountain-bikers-turn-to-e-bikes/?sh=3013e9aa1812

NZ Govt current “E-Bike” Policy

New Zealand Transport Agency
https://www.nzta.govt.nz/vehicles/vehicle-types/low-powered-vehicles/

DoC Electric Bikes on public Land
https://www.doc.govt.nz/Documents/about-doc/policies-and-plans/electric-bikes-guideline.pdf
General Policy For National Parks
https://www.doc.govt.nz/globalassets/documents/about-doc/role/policies-and-plans/general-policy-for-national-parks.pdf

IMBA (International Mountain Bike Association)
https://www.imba.com/education/emtb

IMBA's eMTB position

Access to natural surface trails for traditional non-motorized mountain bikes is critical to the future of our sport. As technologies evolve, we understand the need to examine access for Class 1 eMTBs and the unique characteristics they possess compared to traditional mountain bikes. We support trail access for Class 1 eMTBs and support shared use on trails as long as access is not lost or impeded for traditional mountain bikes. IMBA recommends Class 1 eMTBs be managed independently from traditional mountain bikes and we encourage land managers to develop separate regulations. IMBA will continue to engage all stakeholders on this issue in an effort to reach outcomes that best suit all users. *(last updated 2019)*

Overview of eMTB Classes

eMTBs represent an emerging technology and are neither classified as a mountain bike nor a motorcycle. As a result, eMTBs confuse long-standing regulatory structures for trail management, which have frequently divided trails as either “motorized” or “non-motorized” regarding who/what can use them.

Electric (battery-powered) bicycle technology has advanced to the point that there are currently three classes of eMTBs. An electric bicycle is defined as a “bicycle equipped with fully operable pedals and an electric motor of less than 750 watts.”

CLASS 1: A “class 1 electric bicycle,” or “low-speed pedal-assisted electric bicycle,” is a bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.

CLASS 2: A “class 2 electric bicycle,” or “low-speed throttle-assisted electric bicycle,” is a bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.

CLASS 3: A “class 3 electric bicycle,” or “speed pedal-assisted electric bicycle,” is a bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour, and equipped with a speedometer.

Motor Power - for putting powered bikes in context.

Outputs Motorised bicycles have a huge range of power outputs.
Low powered ebike motors start at around 250watts, up to motorised mountain bikes like the Stealth B52 delivering 5,200watts.
For perspective:
● 200 watts is around the threshold output of an average rider (1 hour).
● 250 watts is the power output of most ebikes currently sold in NZ bike shops. ● 300 watts is around the power output of a Tour de France rider over a stage (46 hours). ● 300 watts is the maximum for “powerassisted bicycles” according to the NZTA, above that it is considered a “moped” and needs a registration plate:
● 400 watts is around the threshold output of a Tour de France rider (1 hour). ● 700 watts is around the maximum sprint power of an average rider (5 second burst). ● 750 watts is around the maximum an Olympic level cyclist can output for a couple of minutes:
https://www.youtube.com/watch?v=S4O5voOCqAQ
● 1000 watts is the power of a Bafang retrofit middrive power system:
http://dillengerelectricbikes.com.au/electricbikekits/bbshd1000bafangmiddrivebybafang.html
● 1300 watts is around the maximum sprint power of a Tour de France rider (5 second burst).
● 2000 watts is the maximum for a “moped” according to NZTA, above that it is considered a motorcycle:
● 5200 watts is the power output of the Stealth
http://www.stealthelectricbikes.com/stealthb52bomber/

Increased Trail Wear/ Damage
The increased power and speed of motorised bicycles means more braking force applied into corners and more torque on climbing surfaces. Both inevitably increase trail wear/ damage, even if only marginally, and as such increased ebike use will require more trail maintenance/ more durable trail construction.
There is also a large increase of *all* Mountain Bike use, so increased trail maintenance is already an

issue.

User Conflict
During the current wide-spread adoption of current E-bikes there has been some concern about user conflict..
In the most part these concerns have not been realised or have proven to be sufficiently managed. It could be argued that the majority of conflict towards E-bikes is because it is a *new* user group sharing the space. Not that it is the E-bike itself causing the issue. As mirrored in many other sports, Skiing/Snowboard, Surfing/SUP etc.

NMTBC continues to work towards education of all mountain bikers on trail etiquette.

Perceptions of Conflict surrounding future Ebike use on the Arizona Trail
https://aztrail.org/wp-content/uploads/2020/10/Perceptions-of-Conflict-Surrounding-Future-E-Bike-Use-on-the-Arizona-Trailsmall.pdf

Mainstream coverage of E-MTB - Stuff News July 2020
https://www.stuff.co.nz/travel/back-your-backyard/122032268/powering-along-nelsons-mountain-bike-trails-on-an-ebike