Data Submitted (UTC 11): 10/14/2020 4:27:02 PM First name: David Last name: Brochman Organization: Title: Comments: Hello and thank you for hearing my comments.

I am advocating on behalf a class 1 ebikes primarily. These bikes, as I'm sure you'll well aware are the most abundant form of ebike. They are regulated to 250w and 20mph (all though in my experience I tend to see closer to 18.5 mph)

The out line for my argument is that a class 1 ebike does not produce more force and speed than an elite level cyclist. This rationalization was concluded by doing my own private study of non conditioned cyclists, and evaluating fitness level through their functional threshold power (FTP). FTP is the measurement of a cyclist ability to sustain a level of intensity over the course of an hour. This intensity is measured in Watts (w).

My study found that adult males ages 27-35 had an ftp of 150-180w. Obviously these numbers will be higher in better conditioned cyclist, but the demographics of ebikers at this point have proven to be older, and/or less conditioned individuals.

So with that said, if we know that a class 1 ebike has a maximum power output of 250w, combined with a maximum effort from the cyclist of around 180w we're seeing a total combined effort of 430w. Although that is a very strong human, it is a number that top tier world cup mountain bikers are capable of and thus, it is not super human.

Taking it a step further, if you look at the average battery size being 500 watt hours (WH), those 250w that the ebike is capable of putting out are only able to provide 2 hours of endurance, and it is more likely that that the rider will be using a lower power setting for increased range. Thus the actual totally power will likely be less than that of a top tier athlete, and closer to that of very fit athlete.

Up until this point we've also neglected the idea of power to weight ratios. Its important to mention that even if these deconditioned cyclist can produce the power of a top tier athlete, the combination of extra weight from the ebike, and there average body composition, its unlikely they will be able to achieve the same speeds that elite or top tier athletes can, in a climb.

A final point I'd like to make is in the comparison to dirt bikes; yes, ebikes do have a motor. We can't deny that. But does that make it a dirt bike? Well a 250cc dirt bike makes about 25hp. If we know that 1hp is equal to 745w, than we can deduct that a 250cc dirt bike makes ~18,000w. 42x that of the combined efforts in our previous example. So when discussing whether or not a class 1 ebike is a dirt bike, it seems it would be safe to say that the ebike augments the humans ability within their metabolic capability, while a dirt bike far, far exceeds a humans capabilities overall.

Thank you for reading my comment. If you have any questions, feel free to ask. I would love to expand on the topics discussed.