EZoomers a zine for NZ ebike enthusiasts

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Epic Aussie E-bike ride with WW Ching

The founder/director of eZee bikes worldwide, Wai Won Ching, has traveled 6580 km from Perth to Sydney. He and two friends traveled thousands of kilometres of country and dirt roads as well as the southern coastal highway. 38 days in total! They were on stock eZee bikes, no special parts used. There were no breakdowns with the bikes, although one heavily loaded cargo bike wheel suffered spoke damage. They did this trip without a support vehicle, carrying camping and supplies in panniers for the whole trip. They had food drops from a friend in Sydney along the way, and they ate out a lot, but not always. It was a true touring adventure, and it ended very well with only one significant crash (from reading a map while riding!) The bikes were fine when they arrived, and they are ready to go back again, but the riders have other lives to attend to. Are you the next continent crosser on an eZee? Electric bike touring is a grand experience. Zero-emission, quiet, healthful and a great adventure. More pics on page 2.

INSIDE THIS ISSUE:

Did you know?

Portland Oregon saves its citizens 1.1 billion dollars per year in transport and fuel costs by biklanes. Biking has created 1200 permanent jobs, revitalized the city and brings in 90 million per year in bike tourism. Total investment = $3m per year!

Did you know?

Daphne Bell, E-bike pioneer

When Daphne Bell was elected to Hamilton City Council in 2004, she hadn't ridden a bike for decades but she volunteered to be the cycling advocate because cyclists' interests were not well represented around the council table.

Thinking that she should set a good example, Daphne bought a Go e-bike and has never looked back. What began from a sense of duty soon morphed into biking for pleasure and an environmentally friendly, low-cost alternative to going by car.

Although she has now moved on from Council she will keep riding her trusty blue e-bike with a colourful lei on the carrier.

More pictures from the Epic Aussie 6580km E-bike ride with WW Ching

Front wheel e-drive wins the day - Jace Hobbs

You will hear ardent advocates of electric assist e-bikes with rear wheel, front wheel or mid-drive systems. Rear wheel advocates claim the riders weight is more pressed on the drive wheel. Front wheel drive advocates note the corrective steering benefits of being pulled around corners and less spinout/ more control. Mid-drive advocates talk of centered weight.

It's all a bit confusing, so let's take a different tack to get some clarity. Let's look at companies that use one type or another of the e-drive systems to shed some light on the ultimate utility of each system. Here's what many pros and fleet managers have settled on as their chosen configuration. Fleet managers do a lot of research on the merits of the drive-train of bikes and then they spend tens of thousands on the choices they make. There is a lot of responsibility in this and the decision needs to be a careful one. So what are the choices they make? Reliability is a chief concern for them.

- NZ Post is trialing a couple of hundred e-bikes now and has gone through a three year study of e-bike components. They have settled on front wheel drive hub motors with planetary gearing.
- Palmerston North Council settled on front wheel drive with planetary gears.
- New Plymouth Council switched from rear wheel drive to front wheel drive with planetary gears.
- Hamilton Council uses a mix of front wheel and rear wheel drive e-bikes.
- Nelson Council settled on front wheel drive with planetary gearing.
- A meter reading company settled on front wheel drive with planetary gearing.
- Dunedin Council settled on front wheel drive with planetary gearing.
- New Caledonia Ministry settled on front wheel drive with planetary gearing.

I see a clear pattern here. These fleet managers and companies can use whatever system they need, but have chosen to go with front wheel drive with planetary gearing. This flies contrary to the generic Chinese manufacture of rear wheel drive systems for e-bike conversions. The reason that less expensive e-bikes have rear wheel drive is perhaps because it is cheaper to make the rear-wheel drive component.

Front wheel hub drive e-bikes allow internal rear gear shifting (like the old Sturmey Archer units, but better) . Many cargo bike companies use front wheel drive to allow the distinct advantages of internal gearing on the rear pedal driven wheel. Extracycle, Juiced Cycles, Yuba and eZee are examples of major companies that use front wheel drive systems on their cargo bikes. The ayes have it.

Electric Bike Hub is finalist in SBN contest

The Sustainable Business Network has annual business awards and one of the categories has Electric Bike Hub in the top four finalists.

At the time of this printing, the invited entry in the Environmental Impact award is being decided among four impressive entries. Electric Bike Hub entered with their business model of 'Stealth Environmentalism'. This successful concept is not to market the bikes as environmentally correct or what you "should" ride. We simply avoid this issue altogether and completely sell the product on utility, economy, performance (fun), and lifestyle. We sell our bikes to hundreds on the basis of immediate self-interest. We leave it to the individual whether zero-emission is a desirable aspect for them. Fortunately, many think it is.

New Caledonia buys eZee fleet

Electric Bike Hub has been selected by the New Caledonia Ministry for the Environment to supply a fleet of e-bikes. This has been a resounding success with the fleet used to ferry people between university campuses. I believe we were not the cheapest bike in the bid, but the appraisal of the fleet manager determined we were the best value. This is exactly how we have won the six Council bids in New Zealand: perceived as the best value for money by fleet managers looking for quality, durability and value. More fleets to come.

In a related story, the Dunedin Council has picked eZee for their fleet bike trials and Auckland Transport has ordered a Sprint 7L fleet to run their intercity delivery programme.

They hope to lure CBD business owners into carless travel, reducing congestion and parking issues. It seems many businesses are receptive to this technology, with eZee offering an attractive package with internal gear shifting while standing still and performance to climb the big hills of Auckland.

The eZee in NZ page

John Key on an eZee

To our knowledge, this is the first Prime Minister in the world to ride an electric bike. Whether this really is a first, it is a first for us at eZee. Celia Wade-Brown let John ride her eZee Torq at a recent trail opening and the PM took off with a smile, but without a helmet. I have had many comments on his lack of protocol with the helmet, and right they are. If we are going to be a nation of laws, then the PM shouldn't flout such safety considerations.

Celia Wade-Brown is Mayor of Wellington and she recently turned down the offer of a Council purchased BMW and instead rides around on her eZee black Torq, saving the city $70k. She has been a strong advocate for bike use, and in her election victory speech, stated that now Wellington would get the bike-ways that it has needed for many years. With several other new Councilors wanting the same thing, it seems Wellington is on the fast track for bike tracks. I can hardly wait for our capital city to be bike friendly, but it's finally happening.

Jace is interviewed on Hutt radio

The occasion was the speaking engagement at the Sustainable Business Conference at Te Papa on September. After that speech, Jace recounted the core situation with electric bikes in New Zealand today, and the promise that they hold. You can catch this interview by clicking here. http://huttradio.co.nz/node/991

EZOOMERS -NZ
NEWS AND VIEWS
ON ELECTRIC BIKES

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Please pass this newsletter on to anyone who would like to get it.

Your next bike could be an e-bike

We encourage submissions about E-bikes and issues surrounding Ebikes for publication in subsequent issues of EZoomers. Simply drop an email to Jace Hobbs and your ideas or article may well find its way to the NZ e-bike community.

A real world test of Hybrid bike distance traveled on a single charge

John in Christchurch has sent in this report about the distance traveled on each light with the new 15 amp hour eZee battery. I think it is instructive re the variability of the voltage drop and shows you can't always estimate the remaining capacity just from the monitor LEDs in percentage terms. The lesson from this is that it is important to measure our remaining useful distance on the handlebar odometer as well as from the LED interface. This is a problem with all brands of bike, by the way, as the voltage on bike batteries is not an extremely accurate way of determining capacity. There are lots of variables that affect the draw that will skew the battery monitor readings a bit. Headwinds, tailwinds, hills, and ambient temperature are primary spoilers of voltage calibration.

Not to worry though, as you will still get a very useful readout from the monitor and you have the trip computer giving you the best measure of distance to go on a charge. I think the distances achieved with our new Sony Hi-capacity cell battery are impressive. We are expecting longer lives out of the batteries as well. The promise of dense battery capacity is upon us.

Here is John's report.

"Hi Jace,

It has taken me more than a week to find the time for a long ride on the flat to test the new battery until it stops. This I have now done over two days. On Wednesday I did 64 km and without any charging, did another 16 this morning until the battery cut out. All this was on the flat and on the 3rd pedal-assist power setting. The winds were moderate with some head and some tail. The distance traveled between lights going out was as follows:

1st green light out	*16 km*
2nd green light out	*35 km*
1st orange light out	*43.5 km*
2nd orange light out	*67 km*
Red light out	*80 km (this is total distance on one charge).*

What is interesting to me is the large variation in the distance covered on any one light. I am not sure if this is due to inaccuracy in the indicator or reflects the amount of head or tail wind.

I am inclined to give it another trial on a higher speed setting and then on a hill ride. You suggested that the battery would improve after several charge cycles."

Yes, John, you will definitely see an increased capacity after several complete charge cycles of the battery. Your results are consistent with my experience with the variability of terrain and rider-assist. Thank you for reporting this. It's a good indication for others about to interpret the lights. The remarkable thing about lithium batteries is that you got almost identical power from the largely discharged battery as you did from the fully charged battery.

Ride on!