

POWER TO THE PEDALS

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Remember first learning to ride, your dad's hand was there at the back of the saddle, pushing you along? Setting off on an electric bike feels a bit like that. With the first push of the pedal, the motor kicks in and whoosh! You're sailing away.

Cycling purists tend to be a bit cynical about electric bikes, or ebikes, as they're more commonly known. The usual objections are that they're heavy, expensive, unnecessarily complicated and use electricity to do a job that can (and should) be done by human power alone. Riding with a motor is cheating, they say.



"I suppose it might look like cheating", says Alistair McHardy, of Bristol ebike specialists Atmosphere Bikes when I pop in for a visit, "if you're comparing it to regular cycling. But we're not. This is simply about transport.

"We're getting a lot of people wanting one to use instead of a car for short trips around town. Using a car in Bristol for a journey of ten miles or less is pure stupidity. You have no idea when you'll get to work, there are accidents, road closures, traffic jams, you name it.

"And it costs a fortune. According the AA, it costs £3,400 a year to do a ten-mile journey to work each day in a small car. We did a direct comparison with ebikes, and it comes to about 10 per cent of that cost. That's a big saving. And of course you skip the traffic jams. My journey to work is 11 and a half minutes every day. Traffic makes no difference."

The demand for ebikes is booming, as increasingly frustrated motorists look for a quicker, more economical way of getting around, that doesn't involve working too hard. An ebike is basically just a sturdy-looking push bike, with a battery pack and a motor to help you along - especially good into headwinds and up Bristol's notorious hills. They share the benefits of regular bikes - light exercise, no parking worries, no VED, no petrol costs, minimal emissions - but have the advantage of being easier to ride, helping you arrive at your destination without unseemly perspiration. "If you're sweating on an ebike, you're doing it wrong," says Alistair.

Ebikes come in all shapes and sizes - mountain bikes, hybrids, fold-ups, stylish cruisers, lean commuter machines. "There's huge variation," says Alistair, "the bike style, the motor, the battery technology. It's pretty complex, which is where we come in. We wade our way through it all, having tested bikes from around 65 different manufacturers, until we find what we think are the best ones. There's a lot of rubbish out there, and the electronics particularly can really let you down if you get the wrong model. So it's worth talking to an expert before you buy."

All ebikes are "pedal-assist" - the motor only helps when you're pedalling. A simple handlebar switch lets you choose how much extra oomph you need. Legislation fixes the size of ebikes' motors at 250watts and their maximum assisted speed at 25km/h (15.5mph).

"Of course, you can go faster than that, but the motor's only allowed to help you up to that speed," says Alistair. "You can still do 40mph down the hills if you want to!"

This legislation doesn't mean that all ebikes are equal though - a superior battery can make one bike two or three times more powerful than another, and, as a rule, you get what you pay for. "Now the big electronics players are entering the technology side of ebikes - Bosch, Samsung, Panasonic, AEG - the quality is improving all the time. Even Mercedes have gone full blown on production - they'll have a range out next year. But being Mercedes, the starting price will be around £2,000."

By this point I'm itching for a test-ride, so Alistair chooses a sleek black machine called a BH Easy Motion Neo Cross - it looks like a hybrid bike on steroids. One push of a button turns on the control panel; I climb on and push down on the pedals. Immediately, the torque-sensitive motor kicks in, and the bike surges forward. I glide around College Green and head up Park Street at a fair old lick. Before I know it, I'm at the top of the hill. I'm not even nearly out of breath. Though I won't be swapping my trusty bicycle for a powered version any time soon, I can definitely see



the appeal.

The average range an ebike can cover on a single charge is around 25-30 miles; some will do up to 100 miles. You can still ride the bike even if the battery's dead - it's heavier than a normal bike of course, but there's no resistance from the motor. "For the average commute, any of them will manage just fine," says Alistair. "If a battery's completely dead it might take four or five hours to charge, but the idea is that you top it up every time you use it - an hour here, an hour there. The charger's similar to a mobile phone charger, so you can ride into work, pop the battery off and charge it on your desk ready for the home journey."

Ebikes aren't cheap - Alistair's start at around £450 for a basic model, up to £8,000 for a state of the art machine. The bike I tried sells for £1,900. But when compared to the price of the second car it could be replacing, that kind of money seems a lot more reasonable. And when you think it costs from 4p to fully charge the battery (up to a whopping 7p on some models), compared to the £60+ it takes to fill a car's tank, it's easy to see how a £2,000 ebike can pay for itself in a matter of months. "100 miles for 7p isn't bad going, is it?" says Alistair. "The other thing is that it's actually fun. There's nothing enjoyable about climbing back into your car to sit in a traffic jam, whereas getting on a bike seems to put a big silly smile on most people's faces. You can use the cycle lanes, ride through the park, alongside the docks - I ride to work every day and I love it."

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