

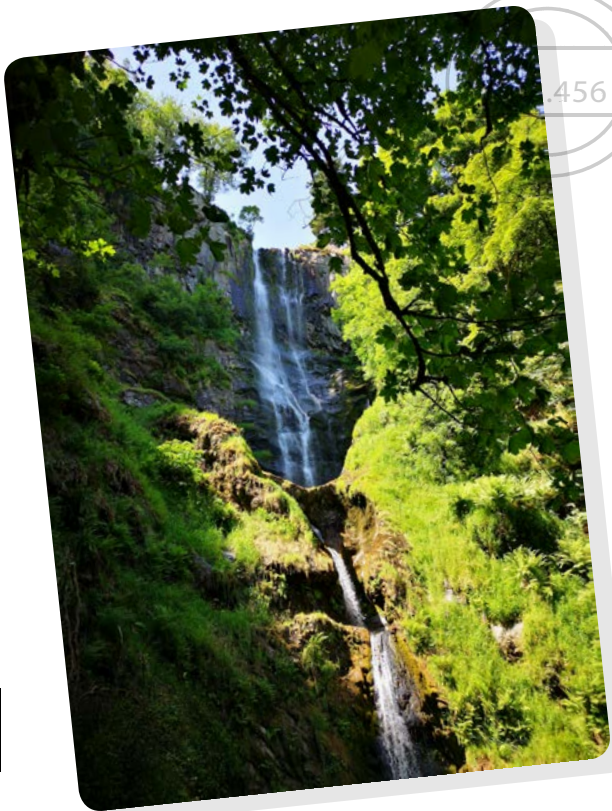
Velocity ELECTRIC



The perfect Get-e-way

– by Mark Sutton, courtesy of Tesla and Orbea

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Marking the opening of Velorution's electric bike only store we partnered Tesla, Orbea and an Eco-Friendly guesthouse in Wales to rack up over 500 miles of fossil fuel free road testing. If you're truly committed to reducing your carbon footprint but reluctant to make too many drastic changes then this may just inspire your next journey...

The Destination

To properly give our vehicle the outing it deserved in both length and variety of scenery, our choice of accommodation was the suitably green, Bryn Elltyd Eco Guest house, nestled in the natural wonder that is Snowdonia. Run by two long-term experts in going carbon neutral – John and Celia Whitehead – our 207 mile journey would give the Tesla a proper road test, with the ability to top up the battery overnight at their property. The electricity used to power the car is, incredibly, generated by natural means on site via a series of composting and gas conversion techniques all managed by the owners; truly, this couldn't have been a more green road test.

The accommodation itself, while rated at three stars, is worthy of a much higher rating. In eco circles it is multi-award winning, having been recognised as a Green Tourism Gold Standard destination, achieved multiple TripAdvisor Certificates of Excellence, gained recognition with the Welsh Assembly as a shining example of carbon neutrality and come second only to the National Trust in the Welsh Green Energy Awards.

From the very foundations to the stream that runs through the garden, engineer John has expertly crafted the lodge and largely out of local materials. Each morning you'll be greeted with a locally sourced breakfast of your choice, while the on-site allotment produces fruit and vegetables also served to guests.

The piece de resistance, however, is the computer controlled biomass central heating integrated with solar panel water arrays. Burning on-site generated wood gas at 900c, you will not go cold even in the depths of winter. The generated heat and power provides ample supply to one 32 amp electric car charge point and a pair of 16 amp points, making this a must for any electric car enthusiast.

Green credentials aside, there were multiple reasons for selecting this wonderful location. No more than a minute's cycle from the lodge you'll find yourself at the foot of what is widely regarded as one the UK's top three cycling climbs, ascending from Ffestiniog up the Moelwyn mountains toward the power station that accommodates the incredibly picturesque dam. This truly is a special climb and one reminiscent of climbs you'd expect to find in the Alps. A collection of eight spectacular hairpin bends snake up the hillside for two kilometres, making this an incredibly popular climb among both local cyclists and visitors. To your left as you climb are views that stretch to the sea, taking in castles, lakes, waterfalls and stunning mountain scenery; it really is plain to see why this sleepy off the radar town features in so many searches for "great UK climbs".

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The Car - Tesla Model S

Packing a range of just over 300 miles per charge, Tesla's Model S would happily undertake our journey with juice left in the tank. With sculpted lines and a metallic red paint that lights up with a little sunshine, even non car aficionados will be able to appreciate that this is quite a machine to behold. We've not undertaken this review for aesthetics, however, the mission statement is to discover just what electric cars of this level are capable of and why a switch to a cleaner transport for longer journeys makes sense.

On introduction to the car, Emma at Tesla talks us through the basics and rattles off a list of features and futureproofing that electric cars are capable of implementing with a software update not too dissimilar to your mobile phone. Unlike traditional petrol or diesel cars, the layout is entirely different. For example, pop the hood and you've storage where you might otherwise find an engine. Pop the rear door with a simple double tap of the Tesla-esque key and you reveal a boot space you couldn't have imagined being as large. In fact we were able to fit our two Orbea test bikes in without the need to take the wheels off, plus several pieces of luggage.

So where's the engine and how does the Model S offer up so much room for a car with dimensions not far off your typical saloon car? Quite simply, the underneath of the car's chassis hosts a giant and very advanced lithium ion battery which powers all four wheels. Minus the need for a traditional engine, fuel tank and moving parts found in fossil fuel consuming cars there's actually a ton of extra real estate to play with, enabling you to taking everything but the kitchen sink for a weekend away.

When purchasing a Tesla there are of course numerous upgrades that can be applied to the base spec and our demo unit was generously equipped. Read on for more on how we found the drive...



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The Bikes - Orbea



Contrasting against the blue skies we were fortunate to enjoy in North Wales were our two gorgeous orange Orbea bikes. The perfect pairing for a couples' getaway, we rode both the Gain D20 All Road E, as reviewed in our *Velorution* magazine, as well as the Bosch Active Line driven Keram Comfort.

The drop barred Gain is the ideal partner for the enthusiast who perhaps isn't cycling primarily to challenge the clock and set personal bests. Enabling a longer day out in the saddle, a gentle tailwind from the Ebikemotion rear hub motor is just enough to see you up steeper gradients in total comfort, but not enough that you'll fall for the notion that you're somehow "cheating". It is therefore the perfect bike for the older club rider, those returning to cycling after a period away, outdoor enthusiasts who desire to lose a few pounds, or quite simply those who want to summit the local topography with energy still in the tank.

Meanwhile, the unisex Keram serves much the same purpose, but brings oodles of added functionality, as well as a greater level of assistance, if required. Bosch's Active Line motor offers Eco, Tour, Boost and Turbo assistance, the latter of which saw our first time tester surpass chiselled road cyclists with a cheeky smile.



The little extras – Pol Roger

A small nod goes to a good friend of Velorution's, the Champagne producer Pol Roger whose bubbly made evening relaxation overlooking the sunset-backed reservoir the perfect way to conclude the day having wound up hairpin bends and notorious hikes. Rich, yet fresh, a deep and refreshing flavour stems from a three year stint maturing in the cellars below Epernay. What better way to celebrate your Snowdon summit?



Adventures in North Wales

If you're spending a while in the Snowdonia National Park you're well catered for in terms of outdoor adventure both on and off the bike. Of course you can hike Snowdon, with the Llanberis trail recommended for those looking for the mellowest route to the summit. There's plenty more nestled within the mountains that comes highly recommended for family getaways. Blessed with natural wonders, our three day stint first took in the UK's tallest waterfall – Pistyll Rhaeadr – found down a windy singletrack in the Oswestry countryside.

Deeper into Snowdonia is a multi-million pound investment dubbed 'Zip World' that has proven a boon for Welsh Tourism. Perfect for kids and adults alike, Zip World's stunning Slate Caverns incorporate the neon lit trampolines of Bounce Below, an experience that is both a workout and a sensory journey through the reinvigorated former slate mines. Aside from the trampolines, the caverns also house a series of obstacles and zip wires that traverse the three miles of underground tunnels.

At the very same location downhill mountain biking, complete with a regular uplift service, features with a variety of graded trails. Adrenaline seekers will have a blast carving down the mountains, which offer a unique mix of woodland riding and loose slate that's immense fun to skid as you kick into each turn.

A 20 minute drive away, in the pine woodlands of Betws-y-Coed, Zip World's forest experiences offer similarly daredevil adventures. Among these is a forest rollercoaster experience that comes highly recommended. Strapped into what is essentially a go kart on railings, you'll weave in and out of the trees at high speed (though you can brake if you need to) with a grin from ear to ear.

Let me begin by telling you a little about the lucky chap tasked with picking up the keys to the Tesla Model S featured here. Day-to-day my car of choice (well, not really) is a rather mistreated Vauxhall Astra Estate bought at a time when the UK Government were proclaiming diesel cars to be cheaper than



their petrol equivalents. Hook, line and sinker, they got me; as a part-time eco-warrior of sorts I traded in a petrol car hoping to ultimately reduce my car use overall. At worst, at least I could claim to be 'doing my bit' to reduce emissions.

Of course, many of us are now much better educated on the risk that pollution poses to our health, social spaces and to the atmosphere around us. You'll no doubt have read the headlines; pollution leads to over 425,000 premature deaths every year in Europe; diesel is one of the culprits and cities are moving fast to discourage, if not ban the use of such vehicles. Clean mobility's progress is positive. In Norway, for example, 52% of new car sales are already electric.

There's a big noise around the potential of clean energy and while no Petrol-esque scrappage scheme exists in the UK as yet, subsidy is available to first time buyers of electric cars. It should also be available for electric bikes, as it is in Paris, Sweden and even now Scotland. Frustratingly, at the time of writing and with bigger fish to fry on the political agenda, it's not on the discussion table for England. But that's a topic for another time.

So, what alternatives to the internal combustion engine are on offer to those who desire to still drive for business or social purpose?

The subsidy for a Tesla will undoubtedly be welcome for buyers. The Model S begins at £64,700 for a 75D battery and runs up to £86,200 for a 100D spec, so the car is certainly an investment piece, but one that will pay its owner back in many ways that traditional cars may not. The first fully electric saloon car, the Model S carries the highest possible safety ratings and boasts the longest range of any electric vehicle – 393 miles (New European Driving Cycle) - on the market, at the time of writing.

On picking up our demo car we talk price and learn that, no, journalists working under the pseudonym Blagatha Christie can't get a discount. In fact, it's only the lucky few buying ex-demo cars able to get a small snip on the price. This is a product that we're told justifies its price tag and I'll soon get to why I came to believe that to be true.

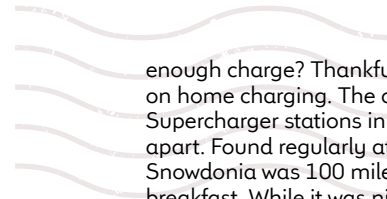
I enter the car for the first time apprehensive of the technology. One does not simply make the leap from an unloved Astra into a car that in comparison carries technology that may as well have come from NASA. "Don't worry, it's all intuitive," says Emma at Tesla as we sit down in front of an on board computer. My inner cyclist is screaming driver distraction, this is more



gadgetry than I'd expected, though what's there is incredibly well organised. On the other hand, my past 12 years' of driving experience is yelling a mix of "roll with it, this is the nicest car you'll ever be seen with" and "please, don't break it."

Emma was, of course, absolutely right. Immediately the generously-sized touch screen is a familiar experience, minus the eye strain of squinting at a mobile screen. I decide I'll give it the benefit of the doubt and spend no more time with my eyes off the road than I would trying to tune my own car's archaic controls. But wait, what's this? I have voice control, activated via a button on the steering wheel? If you prefer, a voice assistant can do its best to interpret commands to give peace of mind. As I later find out, it's not got my Shires accent down to a tee, but it's not half bad for most commands.

What I do quickly learn is that, where things are not presently perfect there's no need to be put off. Thanks to over-the-air software updates, (best carried out on the home wifi) Tesla's cars will automatically update over time. What that means is that you've a car on the driveway that's getting better with age. Updates could be as minute as a user-friendliness update to Spotify within your audio choices. Then again, updates could be much, much more significant. "Potentially we're talking about upgrades to the efficiency of the car itself," we're told. "In fact, the foundations of the software to give our cars a driverless option is there just waiting to be activated when the time's right." While all of that is impressive, before we pull off the forecourt there's one question that every new electric car driver has on their mind; will it have



enough charge? Thankfully, Tesla's seen the bigger picture and isn't relying on home charging. The central console sat nav illustrates the wealth of Tesla Supercharger stations in all directions of travel, most no more than 50 miles apart. Found regularly at service stations, our first voluntary stop en-route to Snowdonia was 100 miles away at a service station where we would stop for breakfast. While it was nice to rest the legs after a decent stint driving, it turns out we needn't have. In fact, on a single charge the trip from West London to Mount Snowdon was well within reach without topping up charge.

There are perks of electric car design that will go un-noticed to the uninitiated. First of all, the large volume battery's low centre of gravity is actually a safety feature and one that vastly reduces the chance of a rollover in a crash. The even and low weight distribution also betters the handling, giving a reassuring planted to the road feel with every turn. The chassis design is also noteworthy as it frees up a lot of internal space for storage. Sticking with safety, without an engine the Model S has a crumple zone much larger than other performance saloons to absorb the energy of a front end impact. So what's the net result of this innovation? The Model S carries a NHTSA and Euro NCAP 5-star safety rating making it among the safest cars available.

Rolling off the forecourt reassured that "it's just like driving a car, but more intuitive" the early miles are indeed a little different. The first detectable difference is that the car has to be driven. Take your foot off the gas and the regenerative braking automatically takes the edge off of your pace. It takes some getting used to but is by no means a bad thing and actually discourages the speedo from creeping upwards. Given the car's quiet operation and lack of engine noise on which to benchmark, I'm quite relieved to have this feature.

Having been passenger in a Tesla prior to this road test, I'm highly aware that these cars can pick up speed almost unlike anything else on the market. In fact, in seeing the spec sheet prior to my first run I'm aware that this car claims to be the fastest 0-60mph four-door saloon ever built. Such is the G-force of the acceleration, one of Tesla's many software updates added to date is the addition of a 'chill' mode in the car's settings. I pop it on, but ultimately decide that 'no chill' mode (that's what I'm calling it) is preferable on long stretches of motorway.

Firmly planted in the ultra-comfortable seats and with a clear stretch ahead I give the 'gas' pedal a firm press as we enter the M25. The uptake is unlike anything I've felt driving, yet thanks to the low position on the road the car feels stable, responsive and is keeping me well-aware of the driving conditions. With each car passed a distance indicator is letting me know how



close vehicles are via a series of external sensors. This feature would later come in much more useful negotiating narrow alleyways in the Welsh hills, but it's reassuring to know your position on the road beyond your own field of view.

What takes me wholly by surprise is that, despite being in charge of what is essentially a road going rocketship, I've no desire to pin the accelerator to the floor; the driving experience is intrinsically relaxing, I'm in no rush. The interior plays a big part in this. The spacious cabin seats five adults and two children, if you've rear-facing jump seats. For the two of us heading into the hills there's ample room. 100 miles in and the sublime seats feel as comfortable and supportive as they did when we first got in. They're highly adjustable too with some signature Tesla shaped controls to the side of each seat.

Very quickly we've familiarised with syncing mobile devices and Spotify accounts via the 17" central display. Everything is plug (or sync) and play. The sound is provided via a Dolby surround system that is rich and immersive, so if you like your music on the road this will have you singing along in no time.

Crossing the border into Wales the constant barrage of the motorway's white lines quickly become a thing of the past and the drive really livens. Ascending into the hills the roads become tighter as they wind up through Alpine-esque forests and out over spectacular summits. The car handles everything in its stride, steering with pinpoint accuracy round tight corners and alerting me gently as pass over narrow slate-sided bridges. The remaining mileage is quickly eaten up. My passenger succumbed to the comfort of the seats and climate control long ago, but the combination of the scenery and the Model S' handling through the valleys prompted multiple stops to photograph the landscape before pushing into a few more hairpin

turns with a big smile. It goes without saying, but you just don't get this level of driving satisfaction from a petrol or diesel car; nope, the Model S is leagues, if not lightyears ahead in driving experience.

Thanks to a happy accident where just 20% of our test ride's roof rack was installed (100% version sold separately) the next stage of our adventure lay flat in the boot. With the back seats folded down the Model S swallowed up two electric bikes with the wheels on, plus our luggage with ample room to spare. Another reason for choosing a location not so far away from Mount Snowdon was to put two Orbea electric bikes through a thorough test under both a newbie to electric bikes (that's my partner, Alice) and a seasoned rider of both assisted and do it yourself bicycles.

Arriving at our destination – the wonderfully green multi-award-winning Bryn Elltyd Eco Guest house – we were greeted by the cyclists' best friend; a slice of homemade cake. You'll not need much fuel for a ride on these electric bikes, mind. Our new to electric bikes user would be powered up climbs by an immensely efficient Bosch Active Line motor and one that would quickly see our newbie surge past Strava segment chasing locals on carbon race machines. I'll set the scene...

At the base of the climb to the Stwlan Dam the Ffestiniog railway crossing marks the start of what Alice looked upon with disbelief. "We're not getting up that, not with these," it was protested. Granted I had yet to introduce Bosch's handy 'walk' mode on the controls that would help get what was prematurely dubbed "the fridge" moving. Yep, before the motor's assistance was realised



the admittedly bulky battery and motor had not made a good first impression and earned a nickname. The negativity towards a heavier bike would soon fade, but my timing in wheeling out the comparably show-stopping drop-barred Orbea Gain was undeniably off.

“Why is mine not tucked in, lightweight and slick like yours?” A very reasonable question and one to which at the present time it’s difficult to give an acceptable answer to. The bike industry, for the most part, has favoured the rollout of its most advanced tech for builds suited to men. Thankfully that is now fast shifting toward parity in design and you’ll find much sleeker options for women in our stores now. For now, though, I was in the doghouse just before a long jaunt up a 9 to 14% gradient.

Thankfully the much lauded “e-Bike smile” is a get out of jail free card, if there ever was such a thing for couple’s cycling. Right out of the blocks my sleek performance build was trumped by the output of the Bosch motor, skewing the playing field well in the favour of the newbie and instantly creating a rapport between girl and machine.

Before the first bend I could make out an upwind cheer of “this is amazing”. We had set off just behind a local club cyclist who had given us a quick brief of the route ahead as we hoisted our two bikes over a gate at the base, designed to effectively block the route to motor traffic. That makes this particular climb particularly satisfying for those of a nervous disposition around cars. Predictably, the club cyclist was out of sight before we had begun, but that wasn’t to remain the case. Half way up the initial straight, a gentle 9% ascent, we had caught up with our friend and pulled over beside an elegant waterfall trickling its way down toward the village.

Stopping to get first impression feedback of her first ride aboard an electric bike it’s quickly obvious the benefits have been realised.

“This means I can keep up when you tear off. Better than that, I don’t think I would have taken on this hill at all on my bike at home. I’ve got to send my mum a pic, she’d love one of these.”

We survey the scene at around 150 metres almost directly above our ideally placed green guest house. The view is spectacular, reaching towards the ocean at Porthmadog, up to the dam behind us and far out over the slate caverns and hillsides of Blaenau Ffestiniog. Between us we reflect on just how quickly we’ve ascended to this point and how, with more than half of the hillside left to climb, neither of us feel trepidation about jumping right back on.

We chat as we re-join the blissfully quiet ascent, discussing how an electric



bike can be a leveller for such a variety of people who may or may not otherwise cycle. Far beyond giving a motivational tailwind to a fit and healthy 20-something who simply desires a broader reach on outdoor adventures we put others in the frame. The electric bike, from a bike brand’s point of view was originally pitched at the lapsed 60 plus cyclist; but there are further reaching ramifications for many.

“These would be great for people who want to get back into light exercise to lose a bit of weight, or anyone who has an injury or disability,” says Alice, quickly recognising that this experience is one that will not only be enjoyed by those who perhaps haven’t taken to cycling, but also to open new horizons outside of the car. “I can still feel that I’m using my legs and lungs, this still feels like a workout, but it’s fun; I’m seeing so much more with this assistance,” she adds.

The best was yet to come too. Ahead of us were the aforementioned eight hairpins snaking up the valley. For the enthusiast, this is why you come to North Wales. For us and our fresh legs it was simply an excuse to pretend like a pro and to get the #InstagramGold. Approaching the fourth hairpin and looking





down on what can only be described as a mini Alp d'Huez the sense of achievement was growing. With the summit of the dam in view it was time for a photoshoot. Pinning each corner toward the camera we took it in turns to descend and re-climb the final stretch. In search of the perfect snap for social media we repeated this cycle no less than ten times. That's ten ascents of the same steep hairpin, for fun. Short of being tired, our Orbea's had us craving more and my drop bar Gain offered up all the joy I'd otherwise have had on a high-spec road bike, and more. Agile and grippy in the corners and offering just a light assistance in the climbs, this is a bike that no enthusiast will be able to put down. As an aside to the picturesque Welsh hills, this is actually the perfect bike for my cycle to work. At 14 miles each way, it's not a journey I cycle nearly enough. With this bike under me I can envisage more than doubling my efforts and improving my health in the process.

There is of course much more to the electric bike experience than overcoming hills and enabling those of us who struggle with a pedal cycle to compete for Instagram bragging rights. Back down in town we're greeted by the familiar sound of engines around us. I'm aware that Alice feels the familiar unease of cycling among traffic once more, but it's vastly lessened with the confidence that pulling away from a standstill has the strain, and thus initial wobble, taken out.

As we cycle Porthmadog high street toward the fish and chip shop I'm witnessing a change in Alice's riding style. With the confidence in cadence and balance that comes with assistance I'm seeing hands come off the bar regularly to firmly indicate directions to drivers. The riding position is more upright, confident and able to take in one's surroundings. Quite simply the motor assistance has elevated a previously wary rider's confidence to a state where the worry has been replaced by enthusiasm for the upcoming transition into the coastal town's many steep hills. Quietly, with much less assistance from my motor, I'm beginning to gasp; my battered sausage can't come soon enough. We've racked up a record mileage for us as a couple and by some margin today.

So, does the old "that's cheating" assumption fly anymore? Well, conclusively, no. A number of studies now back up the experience of avid electric bike users; exercise is very much part of the equation. One such piece of research conducted in Norway found that a typical rider will still demonstrate physical exertion "95% of the time", even with assist. All-in-all our orange Orbeas served us well, enabling us to conquer new summits together as a couple and create a lifetime of memories as a result. "So how much are electric bikes," asked Alice as we reloaded each into the boot of the Tesla. Priceless, I'd say; so why not pop along to Velorution Electric to discover your e-Bike Smile.

To schedule a test drive of a Tesla head to [Tesla.com/en_GB/drive](https://www.tesla.com/en_GB/drive).