



URBAN TRANSPORT GROUP

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Consultation response

Smarter regulation: proposed changes to legislation for electrically assisted pedal cycles

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1. Do you support or oppose the proposed change to how EAPCs are classified so that the maximum continuous rated power of the electric motor must not exceed 500 watts instead of 250 watts as set out in the current regulations?

- 1.1. We oppose the proposal to increase the maximum continuous rated power of electric motors to 500 watts.
- 1.2. We feel that this consultation is anomalous when there are much wider issues that need to be resolved, linked to the delayed Transport Bill.
- 1.3. Micromobility as a whole needs a proper legal and regulatory framework, driven by evidence, that sets out a clear role for EAPCs, e-scooters, and other low-speed, zero emission vehicles.
- 1.4. We set out our recommendations for what that framework should cover in our 'Future of e-scooters'¹ paper which recognises that many of the requirements will also apply to other micromobility modes.
- 1.5. Continuing with a piecemeal approach will lead to missed opportunities and will be detrimental to micromobility as a whole.

2. Explain your response to question 1. Are there any additional benefits or risks (including in relation to road safety) not referenced in this document?

- 2.1. We see EAPC's and wider micromobility as having a positive role to play in tackling our big urban challenges around modal shift, poor air quality, accessibility and decarbonisation. Clean, battery assisted modes of travel have an important role to play here as part of a "safe systems" model and a vision zero approach to road safety.
- 2.2. We see a number of potential risks in making a change from 250 watts to 500 watts, including:
 - a more powerful bike would require a larger battery and motor. This would make the bike heavier and potentially more dangerous for both pedestrians and the rider in case of a collision.
 - a more powerful bike would accelerate at a faster rate, increasing the chance of conflict and danger, particularly in busy urban areas.
 - the change would put us out of line with other local markets. E-bikes in the EU are limited to 250 watts, as is currently the case in the UK. If 500 watt models were legalised, they may need to be sourced from further afield (most likely, China) where battery safety rules are less strict. The lack of 500W models may also increase the risk of tampering as people use more readily available conversion kits to increase the power of bikes. This again increases the risk of battery failures and resulting fires. There are already concerns over lithium battery fires and the lack of regulation around the market. Larger batteries, with lower safety standards, could lead to an increased fire risk.

¹ [UTG \(2022\) 'The future of e-scooters: What powers do cities need and what standards should be set?'](#)



- The change could put the safety of gig economy workers – and those around them – at risk. EAPCs are extensively used by on-demand food delivery companies, whose riders are already under pressure to deliver as quickly as possible, often in congested urban environments where conflict with other road users and pedestrians is more likely.
- All of the above has the potential to impact negatively on other road users (including pedal cyclists) and vulnerable groups, such as people with visual/mobility impairments, children and older people. In our city centres there are many potential points of conflict, including shared spaces, crossings, and bus stop bypasses, where the safety of the pedestrian should not be worsened.

2.3. We would support an assessment of the case for higher powered cargo bikes to enable greater load capacity, range, and gradient capacity, subject to limitations on weight, total speed and acceleration. Before making such a change we would still want to see evidence that the benefits outweigh the risks.

3. Provide any relevant evidence to support your responses to questions 1 and 2.

- 3.1. We see two big risks in increasing the power of e-bikes.
- 3.2. The first is the safety of pedestrians. More powerful bikes would require larger motors and batteries. This would make them heavier and in turn make them less safe for pedestrians in a collision. The bikes would also be able to accelerate at a faster rate, again increasing the possible risk to pedestrians.
- 3.3. There has been an increase in illegally modified e-bikes, with recent data showing the number of bikes seized doubled between 2022 and 2023, reaching 260 bikes². However, this does not reveal the true scale of the problem, as the police do not have sufficient resource to tackle this problem day-to-day. The dangers of modified bikes will become more acute if 500 watt motors are allowed as standard, significantly increasing the speed and rate of acceleration that these illegal bikes are capable of.
- 3.4. The second relates to the safety of batteries. In the first half of 2023, on average, the London Fire Brigade was called to an E-bike or E-scooter fire once every two days, a 60% increase when compared to the same period a year earlier³. In the first three months of 2023, this led to four deaths due to exploding batteries.
- 3.5. Whilst there are strict rules governing the safety and standards of batteries, these are very difficult to enforce when goods are brought from overseas. A movement away from the European standard of 250 watts could lead to more, and bigger, batteries being imported from less safe markets.
- 3.6. This would be particularly dangerous for E-bike conversion kits, which are currently unregulated.
- 3.7. We feel this consultation has missed an opportunity to explore new legislation to look at tighter controls over batteries. One condition for exploring higher powered e-cargo bikes could be that batteries and chargers for all e-assist pedal cycles become type approved.

² [Number of e-bikes ridden illegally in Britain doubles year-on-year \(telegraph.co.uk\)](https://www.telegraph.co.uk/news/2023/04/11/number-of-e-bikes-ridden-illegally-in-britain-doubles-year-on-year/)

³ [How safe are electric bike batteries? We investigate the surge in battery fires - BikeRadar](https://www.bikeradar.com/news/2023/04/11/how-safe-are-electric-bike-batteries-we-investigate-the-surge-in-battery-fires/)



3.8. The London Fire Brigade has also called for more regulation and stricter enforcement of conversion kits, batteries and chargers⁴. We feel that these issues need to be addressed before any changes are made that could worsen the situation.

4. Do you support or oppose the proposed change to allow EAPCs to have throttle assistance up to 15.5mph (25km/h) without the need for type approval, instead of 3.73mph (6km/h) as currently regulated?

4.1. We do not support this move.

4.2. E-bikes are currently a form of active travel, and as such provide additional health benefits to the user. Not only would such a change remove these benefits, it would also blur the distinction between an E-bike and an electric moped.

4.3. We would not want to see changes to legislation that undermine the privileges of the pedal bike, which can be ridden without helmet or licence, and on cycle paths.

4.4. This change would blur the boundary between an EAPC and an e-motorcycle, creating complications from an enforcement perspective.

5. Explain your response to question 3. Are there any additional benefits or risks (including in relation to road safety) not referenced in this document?

5.1. E-bikes begin to blur the difference between a bicycle and a motorbike. However, the key difference remains that an e-bike is not propelled exclusively by mechanical power. This was a key distinction in a recent EU courts rule setting out that E-bikes are bicycles and not motorbikes.

5.2. Allowing an E-bike to be propelled exclusively by mechanical power blurs the line between what is a motorbike, which requires a helmet, license, test, insurance, number plate and to be ridden on the road, and what is a bike, which is exempt from the aforementioned requirements.

5.3. We have concerns from a safety point of view that greater capacity motors demand higher capacity batteries, and, the scope for modifications/abuse of higher ratings is already problematic. Police reports involving non-road legal e-motorcycles and mopeds / adapted EAPCs is already increasing in our urban areas. This move would make it more difficult to identify the difference between a legal/illegal bike.

⁴ [‘Souped-up’ e-bikes are being seized by City of London Police | electric bike reviews, buying advice and news - ebiketips \(road.cc\)](#)



6. Provide any relevant evidence to support your responses to questions 4 and 5.

- 6.1. The EU recently concluded that an e-bike is a bicycle rather than a motorbike because “it is not propelled exclusively by mechanical power”⁵. We are concerned that any changes to the requirement to pedal blurs this boundary between a bicycle and a motorbike.
- 6.2. Changes to the power levels and requirement to pedal could lead to reviews of what classes as a bicycle. The EU review found that e-bikes “do not appear to be capable of causing bodily or material damages to third parties comparable to the damage that may be caused by motorcycles, cars, trucks or other vehicles”. Changes that would make the bikes heavier, faster to accelerate, and potentially slower to stop would narrow the gap between the harm caused by an e-bike and other types of vehicle.
- 6.3. A similar change was discussed back in 2011 and was rejected at the time. We are unclear as to what has changed since then to warrant alterations to the law⁶.

7. Do you support or oppose limiting either or both of the proposals to disabled people with impairments that affect their mobility and who would benefit from the proposals? If applicable, provide views on which disabled people the proposals should apply to. Explain your response and provide any relevant evidence.

- 7.1. Whilst we accept that allowing a bicycle to be ridden without pedals could enable more people to travel by this mode, we feel that such a change could do more harm than good.
- 7.2. Firstly, it would be very difficult to police who is legally using a bicycle that does not require pedalling and who is not, particularly given that not all disabilities are visible.
- 7.3. Secondly, the same disadvantages still apply to pedestrians from heavier batteries, faster acceleration, and potentially higher top speeds.
- 7.4. Thirdly, safety concerns around increased potential for battery fires remain.

8. Do you support or oppose limiting either or both of the proposals to e-cargo bikes? If applicable, provide views on how e-cargo bikes could be defined for these purposes. Explain your response and provide any relevant evidence.

- 8.1. We could see a potential benefit in allowing E-cargo bikes to have a more powerful motor to enable the carriage of heavier loads. That said, current e-cargo bikes are capable of carrying loads of up to 300 kilograms. However, we fail to see the benefit of removing the requirement to pedal.

⁵ ["E-Bikes are bicycles, not motorbikes": EU Court rules e-bikes as not capable of causing "damage comparable to motorcycles"; Chris Froome's new bike with disc brakes; £32k karma for not restoring cycle path; Penny-farthing stunts + more on the live blog | road.cc](#)

⁶ [EU's electric bike rule changes slammed by Bicycle Association boss - BikeBiz](#)



8.2. If there are benefits to increasing the power, we need to consider any safety issues that may weigh against the benefits – especially where conversion kits are used on regular bikes with a luggage space. Again, the dangers to pedestrians and from battery fires remain.

9. Provide any relevant evidence in response to the questions in the [impact assessment](#) – see paragraph 33.

9.1. No response

10. What, if any, evidence can you supply on the current size of the e-cycle stock owned by UK transport users and the total annual trips made?

10.1. Research conducted for UTG in 2021⁷ reported that e-bikes accounted for 3% of bikes sold in 2019, compared to between 10 and 30% in European counterparts.

11. What, if any, evidence you supply on the current size of the e-cycle market in the UK, including manufacturing volumes, or its potential future growth rate?

11.1. The UK e-bike market was valued at £0.16 billion in 2020 and is expected to reach £0.29 billion by 2026⁸.

12. Do you have any:

estimate of the response that e-cycle manufacturers will have to the proposed regulatory changes and any costs and benefits associated with that response

costs associated with the response that e-cycle manufacturers will have to the proposed regulatory changes

benefits associated with the response that e-cycle manufacturers will have to the proposed regulatory changes

12.1. No response

13. What, if any, evidence can you supply on whether and how market prices for e-cycles might be affected?

13.1. No response

⁷ [UTG/Steer \(2021\) Fully charged: Powering up the potential of e-bikes in the city regions](#)

⁸ Mordor Intelligence (2021) United Kingdom E-Bike Market – Growth, Trends, Covid-19 Impact and Forecasts (2021-2026). Available at: [United Kingdom E-Bike Market | 2021 - 26 | Industry Share, Size, Growth - Mordor Intelligence](#)



14. Specifically in respect of the proposed regulatory changes what estimate, if any, do you have on the response of:

consumers to any change in e-cycle function and performance – in particular, how it might affect the number of trips taken

transport users to any change in e-cycle function and performance – in particular, how it might affect the number of trips taken

14.1. We do not have any evidence to suggest that e-bike sales or trips are being suppressed by a lack of power or the requirement to pedal. The e-bike market in Western Europe, particularly Germany and France, has seen significant growth over recent years, despite their regulations being aligned with the current UK regulations. In Germany, for example, one in nine households owned an e-bike at the beginning of 2020, and it is estimated that e-bikes could soon account for half of all bicycles sold in the country⁹.

15. What, if any, evidence can you supply on the number and size of businesses that might be affected by these proposals – in particular, whether small and micro businesses may be affected?

15.1. No response.

16. What, if any, evidence can you supply on what impact these proposals might specifically have on disabled people?

16.1. When considering any change to legislation we must ensure that it does not reduce overall levels of safety, or the feeling of safety, for disabled people.

16.2. We should also consider the impact on communities more widely, particularly children and older people.

16.3. More powerful e-bikes will accelerate more quickly and would have the potential to achieve higher speeds. As outlined, earlier, their speed, combined with their increased weight due to the battery size, makes them more dangerous to pedestrians.

16.4. We want to see streets that are safe for all and are conducive to walking, play and cycling by people of all ages and abilities. In allowing more powerful e-bikes, roads and urban spaces could become less liveable for other users, for example, children and young people may feel unsafe sharing the road with faster, powered cycles.

17. What, if any, evidence can you supply on what impact these proposals might specifically have on e-cargo bike users?

17.1. No response.

[Smarter regulation: proposed changes to legislation for electrically assisted pedal cycles - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/smarter-regulation-proposed-changes-to-legislation-for-electrically-assisted-pedal-cycles)

⁹ [UTG/Steer \(2021\) Fully charged: Powering up the potential of e-bikes in the city regions](#)