



NFCC
National Fire
Chiefs Council

c/o 71–75 Shelton Street
Covent Garden
London
WC2H 9JQ
www.nationalfirechiefs.org.uk

EAPC Consultation Team
Great Minster House
33 Horseferry Rd
London
SW1H 4DR

Sent to: EAPCConsultation@dft.gov.uk

24 April 2024

Dear EAPC Consultation Team,

Smarter Regulation: Proposed Changes to Legislation for Electrically Assisted Pedal Cycles

The National Fire Chiefs Council (NFCC) is pleased to respond to this consultation, published on 29 February 2024, regarding proposed changes to legislation for electrically assisted pedal cycles (EAPCs). NFCC is the professional voice of UK fire and rescue services (FRS) and is comprised of a council of UK Chief Fire Officers. This response was drafted by NFCC's Strategy and Policy team in consultation with subject-matter experts within NFCC and our members. Our response reflects their expertise and competence with the subject matter.

NFCC and the National Police Chiefs' Council (NPCC) hold similar concerns around the impacts that these proposals will have on road safety, and our organisations' responses to the consultation questions on road safety are submitted jointly.

NFCC opposes introducing the proposed increases to EAPC motor power and throttle assistance due to the knock-on impacts these changes may have on road safety and fire safety, in particular the fire risks that lithium-ion batteries pose to firefighters and the public. The proposed changes must be accompanied by robust mitigation measures for the new or increased road safety risks, as well as supporting regulations to reduce the fire safety risks posed by the lithium-ion batteries in Personal Light Electric Vehicles (PLEVs). It is also important that the public are encouraged to purchase, use, charge and dispose of all products containing lithium-ion batteries correctly and safely.

Smarter Regulation of EAPCs

The Government's Office of Product Safety & Standards (OPSS) has not yet published their response to the [Product Safety Review Consultation](#) or the results of the OPSS-commissioned research into EAPC/PLEV lithium-ion battery fires. The Department for Transport's proposals are therefore out of step with the aim to have a safer marketplace framework for EAPCs/PLEVs in place. Further, proposing changes to EAPC motor power and throttle assistance without understanding the findings from the Government's own research on the fire risks associated with EAPCs/PLEVs contradicts the cross-government ambition for a smarter regulatory system.

Any changes to the maximum power of EAPC electric motors must be accompanied by stronger product safety and marketplace regulations to prevent any increase to the fire risks associated with EAPCs/PLEVs. NFCC recommends the introduction of enhanced product safety rules for PLEVs, including dedicated standards and testing requirements, ensuring that appropriate standards are in place for conversion kits, chargers, and batteries. The Department's proposed changes must also be accompanied by more robust marketplace regulations relating to online retailing to ensure that all PLEVs, batteries, chargers, and conversion kits sold in the UK both physically or via online platforms meet UKCA or CE standards. This is essential to reduce the proliferation of unregulated and potentially dangerous products from the global marketplace. Such requirements should be set out in legislation, for example by adopting the [Safety of Electric-Powered Micromobility Vehicles and Lithium-ion Batteries Bill](#).

Finally, it is crucial that the public are encouraged to purchase, use, charge and dispose of all products containing lithium-ion batteries correctly and safely through awareness raising and education campaigns, such as the Fire Kills Campaign, [NFCC's key safety messages](#), and the promotion of [OPSS guidance](#) on PLEVs.

Fire Safety and EAPCs

Although the consultation impact assessment acknowledges the risk that more powerful e-cycles could result in more severe battery fires, and that this could be exacerbated by tampering, NFCC believes that the fire safety risks around EAPCs/PLEVs have not been sufficiently considered or addressed in the Department's policy development.

The [increased use of EAPCs has been accompanied by a growing fire safety concern](#) associated with their charging, storage, purchase, damage, and disposal. The fire safety risks surrounding EAPCs/PLEVs include:

- The risk of ignition posed by damaged, faulty, or non-safety-certified lithium-ion batteries;
- Batteries and chargers lacking either proprietary connections or communications protocols to prevent over-voltage or incorrect charging;
- Products being sold online that do not meet British or European product standards, including e-bike conversion kits;

- Risks from e-bikes and e-scooters being charged and stored in enclosed spaces in the built environment or in escape routes and communal areas in multi-occupied or high-rise residential buildings (this risk is greater for disabled people who may be less able to escape a rapidly developing fire);
- Batteries damaged (e.g., in collisions) overheating and catching fire without warning; and
- Incorrect disposal of lithium-ion batteries in household waste, which can cause fires in refuse vehicles or waste processing centres.

Lithium-ion battery fires develop rapidly and are prolonged as the battery materials fuel the fire. These fires pose challenges in terms of firefighting activities, as they are difficult to suppress and extinguish and can release toxic chemicals. There is also potential for reignition due to residual heat. More powerful electric motors may require larger lithium-ion battery capacity, which could result in more dangerous, explosive fires that could further increase the risk of injuries and fatalities to the public as well as increasing the operational burden on FRS.

Lithium-ion battery fires are, therefore, a growing operational burden on FRS. Given that the proposed changes to EAPC motor power may increase both the severity and frequency of EAPC fires, the Government must ensure that there is research into fighting these fires, as well as sufficient additional funding for FRSs to provide the necessary training and equipment around lithium-ion battery fires to ensure the safety of firefighters and the public. Any increases in EAPC motor power must also be accompanied by stronger product safety and marketplace regulations to address the fire risk around EAPCs/PLEVs.

Road Safety and EAPCs

Each year, UK FRS attend thousands of road traffic collisions (RTCs), rescuing drivers and their passengers and providing emergency first aid and trauma care. FRS are therefore a crucial partner in cross-agency efforts to improve road safety. Road safety as a prevention activity is a core role for many FRS.

The Department's proposed changes to legislation for EAPCs will likely have a significant negative impact on road safety. The consultation impact assessment correctly identifies that increasing the power of e-cargo bikes could enable them to carry heavier loads, which could increase the severity of injuries in collisions. This is a significant risk, especially as both [UK Government](#) and [international](#) data shows an increasing number of road traffic collisions (RTCs) involving EAPCs/PLEVs, and one that is exacerbated by the "de-restriction" of EAPC motors. The consultation document acknowledges that the proposals could lead to more tampering, which would exacerbate the road safety and fire safety risks around EAPCs. Anecdotal evidence, including reports from fire officers of EAPCs that are not being pedalled overtaking vehicles in a 20 mph zone, suggests de-restriction is not uncommon. Online tutorials for de-restricting e-bikes are easily available through social media platforms, e-bike forums, and elsewhere online. Firefighters attending road traffic collisions involving EAPCs may experience additional risk to both casualties and responders due to the additional risk of lithium-ion batteries being involved.

The Department must therefore give greater consideration to the mitigations that will be required to improve road safety around more powerful EAPCs. For example, there may be a need to separate cycle lane users and require more powerful e-cargo bikes (which are also heavier) to use the roadway. Vehicle insurance may also be required due to the potential for the increased frequency and severity of collisions. Road safety could be improved by education and training for EAPC users (e.g., cycling proficiency). The Department must give proper consideration to safety improvements that could be engineered into EAPCs that would counter the negative impact that increases in power and speed will have on road safety, for example automated proximity speed reducers, which compensate for a loss of concentration by a EAPC user, or active pedestrian airbag systems. It is essential that the Department clearly evidences that these proposed changes will not lead to an increase in accidents involving EAPCs and an increased likelihood of serious injury or fatality to the public.

If the Department chooses to introduce changes to EAPC motor power and throttle assistance, these must be implemented incrementally through smaller increases in power, rather than an immediate change to 500 watt motors or 15.5 mph throttle assistance. This should be accompanied by evaluation and review of their impact on users, including any impacts on road safety and fire safety. The Department should therefore establish methods to monitor the changes, for example through requiring built-in monitoring via remotely monitored telematics systems.

In sum, NFCC opposes the introduction of standalone changes to EAPC motor power and throttle assistance and recommends that any legislative change is accompanied by mitigation measures for increased road safety risks and supporting regulations to reduce the fire safety risks posed by the lithium-ion batteries.

We welcome the opportunity to respond to this public consultation and we would welcome further discussion following the outcome of the consultation.

Yours sincerely,



Nick Coombe on behalf of Gavin Tomlinson
Chair, Protection Committee
National Fire Chiefs Council



Rick Hylton
Chair, Prevention Committee
National Fire Chiefs Council

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

Question 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?

Oppose.

NFCC opposes a standalone change to how Electrically Assisted Pedal Cycles (EAPCs) are classified so that the maximum continuous rated power of the electric motor increases to 500 watts due to the knock-on impacts these changes may have on road safety and fire safety, in particular the fire risks that lithium-ion batteries pose to firefighters and the public. The proposed changes must be accompanied by robust mitigation measures for the new or increased road safety risks, as well as supporting regulations to reduce the fire safety risks posed by the lithium-ion batteries in Personal Light Electric Vehicles (PLEVs). It is also important that the public are encouraged to purchase, use, charge and dispose of all products containing lithium-ion batteries correctly and safely.

The Government's Office of Product Safety & Standards (OPSS) has not yet published their response to the [Product Safety Review consultation](#) or the results of the OPSS-commissioned research into EAPC/PLEV lithium-ion battery fires. The Department's proposals are therefore out of step with the aim to have a safer marketplace framework for EAPCs/PLEVs in place. Further, proposing changes to EAPC motor power and throttle assistance without understanding the findings from the Government's own research on the fire risks associated with EAPCs/PLEVs contradicts the cross-government ambition for a smarter regulatory system.

Any changes to the maximum power of EAPC electric motors must be accompanied by stronger product safety and marketplace regulations to prevent any increased to the fire risks associated with EAPCs/PLEVs. NFCC recommends the introduction of enhanced product safety rules, including dedicated standards and testing requirements, ensuring that appropriate standards are in place for conversion kits, chargers, and batteries. The proposed changes must also be accompanied by more robust marketplace regulations relating to online retailing to ensure that all PLEVs, batteries, chargers, and conversion kits sold in the UK both physically or via online platforms meet UKCA or CE standards. This is essential to reduce the proliferation of unregulated and potentially dangerous products from the global marketplace. Such requirements should be set out in legislation, for example by adopting the [Safety of Electric-Powered Micromobility Vehicles and Lithium-ion Batteries Bill](#).

Finally, it is crucial that the public are encouraged to purchase, use, charge and dispose of all products containing lithium-ion batteries correctly and safely through awareness raising and education campaigns, such as the Fire Kills Campaign, [NFCC's key safety messages](#), and the promotion of [OPSS guidance](#) on PLEVs.

If the Department chooses to introduce changes to EAPC motor power and throttle assistance, these must be implemented incrementally through smaller increases in power, rather than an immediate change to 500 watt motors or 15.5 mph throttle assistance. This should be accompanied by evaluation and review of their impact on users, including any impacts on road safety and fire safety.

Question 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?

Fire Safety

Although the impact assessment acknowledges the risk of more severe battery fires from more powerful e-cycles, and that this could be exacerbated by tampering, NFCC believes that the fire safety risks around EAPCs/PLEVs have not been sufficiently considered or addressed in policy development.

The [increased use of EAPCs has been accompanied by a growing fire safety concern](#) associated with their charging, storage, purchase, damage, and disposal. The fire safety risks surrounding EAPCs/PLEVs include:

- The risk of ignition posed by damaged, faulty, or non-safety-certified lithium-ion batteries;
- Batteries and chargers lacking either proprietary connections or communications protocols to prevent over-voltage or incorrect charging;
- Products being sold online that do not meet British or European product standards, including e-bike conversion kits;
- Risks from e-bikes and e-scooters being charged and stored in enclosed spaces in the built environment or in escape routes and communal areas in multi-occupied or high-rise residential buildings (this risk is greater for disabled people who may be less able to escape a rapidly developing fire);
- Batteries damaged (e.g., in collisions) overheating and catching fire without warning; and
- Incorrect disposal of lithium-ion batteries in household waste, which can cause fires in refuse vehicles or waste processing centres.

Flawed battery design, low-quality components, damage to the battery, improper charging or discharging, or misuse can create faults with the lithium-ion battery cell that may cause batteries to fail. Lithium-ion battery fires develop rapidly and are prolonged as the battery materials fuel the fire. These fires pose challenges in terms of firefighting activities, as they are difficult to suppress and extinguish and can release toxic chemicals. Fighting battery fires requires a prolonged period of battery cooling through the continued application of significant quantities of water or, in some cases submergence. The battery can vent flammable gasses (one of the outcomes of thermal runaway) which if ignited can cause directional jet flames or vapour cloud explosions. There is also potential for reignition due

to residual heat. More powerful electric motors may require larger lithium-ion battery capacity, which could result in more dangerous, explosive fires that could further increase the risk of injuries and fatalities to the public as well as increasing the operational burden on FRS.

There is not yet a clear solution to fighting lithium-ion battery fires or dealing with the aftermath of these fire incidents, such as the handover to a building's responsible person (usually the building owner or a property management company). Large quantities of water are required to suppress or extinguish lithium-ion battery fires, and the battery materials can further contaminate firefighting water run-off, increasing the risk of environmental damage. Lithium-ion battery fires are, therefore, a growing operational burden on FRS. Given that the proposed changes to EAPC motor power may increase both the severity and frequency of EAPC fires, the Government must ensure that there is research into fighting these fires, as well as sufficient additional funding for FRSs to provide the necessary training and equipment around lithium-ion battery fires to ensure the safety of firefighters and the public. Any increases in EAPC motor power must also be accompanied by stronger product safety and marketplace regulations to address the fire risk around EAPCs/PLEVs.

In addition, the lithium-ion batteries in EAPCs pose a significant fire risk in the waste disposal industry as they can ignite when crushed in a refuse vehicle or waste disposal centres. Fires at waste processing centres require a large mobilisation of FRS resources over a protracted period of time and can potentially cause significant environmental damage, impacting air and water quality in particular. These fires also cause significant problems in communities through backlogs to waste disposal if a waste centre is not operational due to fire. NFCC's national operational guidance on fires in waste sites notes that UK FRSs attend around 300 significant fires in waste sites each year.¹ The larger batteries that may accompany the introduction of more powerful EAPC motors increases the fire risk in the waste industry and should be mitigated appropriately through supporting regulations and efforts to increase public awareness around lithium-ion battery products. Encouraging the public to purchase, use, charge and dispose of all products containing lithium-ion batteries correctly and safely will result in fewer waste fires and better environmental outcomes.

Road Safety

In addition to increasing the fire risks around EAPCs, the proposals will likely have a significant negative impact on road safety. The consultation impact assessment correctly identifies that increasing the power of e-cargo bikes could enable them to carry heavier loads, which could increase the severity of injuries in collisions. This is a significant risk, especially as both [UK Government](#) and [international](#) data shows an increasing number of road traffic collisions (RTCs) involving EAPCs/PLEVs, and one that is exacerbated by the "de-restriction" of EAPC motors. The consultation document acknowledges that the proposals could lead to more tampering, which would exacerbate the road safety and fire safety risks around EAPCs. Anecdotal evidence, including reports from fire officers of

¹ NFCC, *Fires in Waste Sites Guidance Framework*: <https://nfcc.org.uk/nog/fires-in-waste-sites/>.

EAPCs that are not being pedalled overtaking vehicles in a 20 mph zone, suggests de-restriction is not uncommon. Online tutorials for de-restricting e-bikes are easily available through social media platforms, e-bike forums, and elsewhere online. Firefighters attending road traffic collisions involving EAPCs may experience additional risk to both casualties and responders due to the additional risk of lithium-ion batteries being involved.

The Department must therefore give greater consideration to the mitigations that will be required to improve road safety around more powerful EAPCs. For example, there may be a need to separate cycle lane users and require more powerful e-cargo bikes (which are also heavier) to use the roadway. Vehicle insurance may also be required due to the potential for the increased frequency and severity of collisions. Road safety could be improved by education and training for EAPC users (e.g., cycling proficiency). The Department must give proper consideration to safety improvements that could be engineered into EAPCs that would counter the negative impact that increases in power and speed will have on road safety, for example automated proximity speed reducers, which compensate for a loss of concentration by a EAPC user, or active pedestrian airbag systems. It is essential that the Department clearly evidences that these proposed changes will not lead to an increase in accidents involving EAPCs and an increased likelihood of serious injury or fatality to the public.

If the Department chooses to introduce changes to EAPC motor power and throttle assistance, these must be implemented incrementally through smaller increases in power, rather than an immediate change to 500 watt motors or 15.5 mph throttle assistance. This should be accompanied by evaluation and review of their impact on users, including any impacts on road safety and fire safety. The Department should therefore establish methods to monitor the changes, for example through requiring built-in monitoring via remotely monitored telematics systems.

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

Fire Safety

Increased use of more powerful e-bikes with larger capacity lithium-ion batteries could result in more dangerous, explosive fires, which will increase operational burden on FRS and could result in further injuries and fatalities to the public.

The OPSS has commissioned Warwick Manufacturing Group to undertake research regarding PLEVs. This research raises concerns that power in such devices may be increased when issues surrounding fire safety (for example, with conversion kits, chargers, and batteries) are not yet fully understood, and will be published later this year. The Department should ensure that it has the results of up-to-date expert research on the fire risks associated with EAPCs powered by lithium-ion batteries before making any regulatory changes to EAPCs that may impact public safety.

London Fire Brigade (LFB) reported attending five fire related incidents involving PLEVs in 2018. This has increased rapidly over a five-year period. LFB recently reported a 78% increase in e-bike fires in 2023 compared to 2022, with 155 e-bike fires and 28 e-scooter

fires being recorded. [Data from the OPSS and UK FRS](#) show that in 2023, 11 deaths from e-bike fires were recorded, the highest number on record. Indeed, LFB state that [e-bikes and e-scooters to be London's fastest growing fire risk](#). This emerging fire risk is not solely down to technical issues with certain products or the mismatching of chargers and batteries, and is reflective of wider social and economic inequalities. Safer e-bikes and e-scooters are prohibitively expensive for large numbers of people, and many vulnerable groups instead choose to adapt or modify their bikes using cheap online products. Cheap batteries and conversion kits available online are often more prone to developing faults and pose an increased fire risk. LFB's fire investigators found that [40% of the 73 e-bike fires](#) that occurred in London in the first half of 2023 involved a converted or modified e-bike.

New York City, a densely populated urban area with similar housing challenges to London, has seen a significant increase in lithium-ion battery fires predominantly related to e-bikes each year since 2019, with 267 fires, 150 injuries, and 18 deaths reported. As a result of increasing numbers of incidents, new product standards and storage rules have been introduced. The [new product standards legislation](#) requires all e-bikes, e-scooters, and lithium-ion batteries for mobility devices to be certified. New York City Housing Authority (NYCHA) has [prohibited residents and their guests from storing or charging e-bikes or e-bike batteries in apartments](#) or the common areas of NYCHA buildings to prevent fires and preserve the health and safety of residents.

The lithium-ion batteries in EAPCs pose a significant fire risk in the waste disposal industry as they can ignite when crushed in a refuse vehicle or waste disposal centres. [Research undertaken by Eunomia](#) on behalf of the Environmental Services Association (ESA) in 2021 estimated that around 48% of waste fires can be attributed to lithium-ion batteries. Eunomia estimated that the total annual cost to the UK of waste fires caused by lithium-ion batteries is £158 million. [Research by Zurich Municipal](#) has found that fires in waste disposal vehicles have increased by 62% in 2021–23. More recent research undertaken by [campaign group Material Focus](#) found that there were more than 700 fires in waste disposal vehicles and recycling centres caused by electrical batteries across the UK in 2022. Fires at waste processing centres require a large mobilisation of FRS resources over a protracted period of time and can potentially cause significant environmental damage. UK FRSs attend around 300 significant fires in waste sites each year.²

NFCC recommends that the proposed changes are accompanied by stronger product safety and marketplace regulations so that any increases to e-bike motor power or throttle assistance do not have a negative effect on public safety. Enhanced product safety rules, including dedicated standards and testing requirements, are needed to ensure that appropriate standards are in place for conversion kits, chargers, and batteries. More robust marketplace regulations relating to online retailing are required to ensure that all PLEVs, batteries, chargers, and conversion kits sold in the UK both physically or via online platforms meet UKCA or CE standards. These regulatory changes should be supported by levels of market surveillance and enforcement capability (e.g., for Trading Standards, which has seen [budget reductions of c.40%](#) in England and Wales in recent years), public

² NFCC, *Fires in Waste Sites Guidance Framework*: <https://nfcc.org.uk/nog/fires-in-waste-sites/>.

awareness raising and education campaigns that encourage the public to purchase, use, charge and dispose of all products containing lithium-ion batteries correctly and safely.

Road Safety

There is currently limited data on road accidents involving EAPCs (compared to other modes of transport) as this is a relatively new issue. Nonetheless, the [UK Government's own data](#), as well as [international](#) data, shows an increasing number of road traffic collisions involving EAPCs/PLEVs. Furthermore, the Metropolitan Police reported a total of 64 casualties in accidents involving EAPCs in 2022 and 106 casualties in accidents involving EAPCs in 2021.

The proposed changes to motor power and throttle assistance may further increase de-restriction of EAPCs (and therefore 'illegal' modifications), leading to a greater number of heavier, faster EAPCs on the roadway. Online tutorials for de-restricting e-bikes are easily available through social media platforms, e-bike forums, and elsewhere online. Research by a range of road safety organisations, including [Brake](#), the [Royal Society for the Prevention of Accidents](#) (ROSPA), and the [National Safety Council](#) (NSC) demonstrates that higher vehicle speed increases the risk of accidents, and the likelihood of serious injury or fatality. With every 1% increase in speed, the risk of an accident rises by 2%, the likelihood of sustaining severe injuries escalates by 3%, and the probability of a fatality surges by approximately 4%. Cycling charity [Cycling UK](#) has also voiced their concerns that these proposals present a significant safety risk to pedestrians and other cyclists due to the proliferation of faster, heavier e-bikes. It is therefore essential that the Department introduces sufficient mitigations so that the proposed changes do not lead to an increase in accidents involving EAPCs and an increased likelihood of serious injury or fatality to the public.

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

Oppose.

While increased throttle assistance would appear to be a sensible proposal, anecdotal evidence from city and town centres appears to show the prevalence of de-restricted EAPCs. Increased power with throttle control may further increase de-restriction (and therefore 'illegal' modifications), leading to a greater number of faster EAPCs on the roadway. The research by Brake, ROSPA and the NSC cited in our response to question 3 indicates that higher vehicle speed increases the risk of accidents, and the likelihood of serious injury or fatality. The impact assessment accompanying this consultation does not sufficiently address this risk. The Department should provide evidence that increasing throttle assistance for EAPCs would not increase the road safety risk to the public as once new regulations are introduced, they will be much harder to reverse.

If the Department chooses to go ahead with these proposals, they must be implemented incrementally through smaller increases in power and speed rather than an immediate change to 500 watt motors or 15.5 mph throttle assistance – with evaluation and review of their impact on users, including any impacts on road safety and fire safety. The Department should therefore establish methods to monitor the changes, for example through requiring built-in monitoring via remotely monitored telematics systems.

Question 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?

See above.

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

See above.

Question 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.

NFCC recognises that these proposals would enable EAPCs to be a more viable mode of transport for people with disabilities or mobility impairments by increasing power and reducing dependence on the physical cycling element of EAPC use. It may, however, be difficult in practice to limit road use of EAPCs with 500 watt or increased throttle assistance to disabled people, as this would be difficult to monitor or enforce.

It is essential that the equalities impact assessment, which the Department states it will produce after the consultation, should be published before any decision is made. This must consider both the benefits that the changes to EAPC motor power will have on people with a disability and the significant increased risks. NFCC is particularly concerned that the proposals will lead to a potentially increased risk to people with a disability due to their reduced ability to react to, or evacuate from, a fire involving a lithium-ion battery, noting the continuing increase in such fires. E-bikes and e-scooters that are charged or stored in enclosed spaces in the built environment, including in escape routes or communal areas in multi-occupied properties and high rises, pose a significant fire risk for all, but one that is greater for disabled people due to their potential reduced ability to react to and escape from rapidly developing fires.

The proposal in Question 7 must be accompanied by a full equalities impact assessment. The Department should also clarify disability rights groups have been directly engaged with on the proposals as a community with expertise via lived experience.

Question 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.

NFCC supports e-cargo bikes being treated separately as their construction and use is of a substantially different nature to that of normal EAPCs. E-cargo bikes present greener options for commercial distribution in urban environments. In the experience of our members, e-cargo bikes are also built to a different standard to normal EAPCs. For example, LFB has experienced one significant fire in an e-cargo bike storage unit that required ten fire engines to bring under control due to the rapidity and intensity of the fire, believed to have been caused by the lithium-ion batteries.

Given the specific nature of e-cargo bikes and the need for sustainable and greener commercial distribution – which is notably different to gig economy food deliveries – there are likely to be significant benefits to progressing separate standards and regulations for e-cargo bikes while ensuring that road and fire safety are fully considered. For example, e-cargo bike companies should ensure that the fire risk assessment for their place(s) of operation fully considers the fire risk posed by EAPCs and lithium-ion batteries outlined above. Furthermore, e-cargo bike companies must accept liability for the associated road-related risk management surrounding the use of e-cargo bikes, for example, where individual users or employees do not have tax and insurance required by statute, employers and self-employed e-cargo users should have the relevant public liability insurance.

The Department must give full consideration to the range of mitigations that will be required to improve road safety around more powerful, heavier e-cargo bikes. For example, there may be a need to separate cycle lane users and require more powerful e-cargo bikes (which are also heavier) to use the roadway. Vehicle insurance or specific cover within a business's public liability insurance may also be required due to the potential for the increased frequency and severity of collisions. Road safety could be improved by education and training for EAPC users (e.g., cycling proficiency). Consideration must be given to the safety improvements that could be engineered into EAPCs that would counter the negative impact that increases in power and speed will have on road safety, for example automated proximity speed reducers, which compensate for a loss of concentration by a EAPC user, or active pedestrian airbag systems.

Question 9. Provide any relevant evidence in response to the questions in the [impact assessment](#) – see paragraph 33. The consultation is limited to the 2 proposed changes to the regulations and the above questions. It does not extend to wider topics related to e-cycles, cycling or active travel, including mandatory insurance, licensing or helmets, the Highway Code, cycle training or riding in an antisocial manner. Responses that are not relevant will be disregarded.

NFCC has concerns with the quality of the impact assessment accompanying this consultation, in particular the limited assessment of the impacts on people with disabilities

or mobility impairments, accessibility factors and the lack of serious consideration of, or mitigations for, the increased road and fire safety risks.

The impact assessment recognises that the proposals will increase road safety risks significantly, but does not fully consider mitigations for these increased risks, instead citing potential policy changes, for example to licensing. Without mitigations, the proposals will most likely have a negative impact on road safety and increase the number of serious injuries or deaths on our roads, which contradicts Vision Zero commitments on a local and national level. Given this, it is concerning that the questions on the impact assessment are largely focused on the e-cycle market (questions 10–15) and that the Department has stated in question 9 above that it will disregard comments on wider topics, including mitigations that are essential to ensure the proposed changes do not negatively impact public safety.

The Department must consider the safety improvements that could be engineered into EAPCs that would counter the negative impact that increases in power and speed will have on road safety, for example automated proximity speed reducers, which compensate for a loss of concentration by a EAPC user, or active pedestrian airbag systems. In addition to this, the potential for these changes to encourage uptake of heavier, more powerful e-cargo bikes should be mitigated by, for example, requiring e-cargo bikes to use the roadway or requiring vehicle insurance for e-cargo bikes.

Question 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?

Other organisations are better placed to answer this question.

Question 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?

Other organisations are better placed to answer this question.

Question 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**

Other organisations are better placed to answer this question.

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

Other organisations are better placed to answer this question.

Question 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

Other organisations are better placed to answer this question.

Question 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?

Other organisations are better placed to answer this question.

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

As highlighted in response to Question 7, NFCC is particularly concerned that the proposals will lead to a potentially increased fire risk to people with a disability due to their potential reduced ability to react to, or evacuate from, a fire involving a lithium-ion battery, noting the continuing increase in such fires. E-bikes and e-scooters that are charged or stored in enclosed spaces in the built environment, including in escape routes or communal areas in multi-occupied properties and high rises, pose a significant fire risk for people with disabilities or mobility impairments due to their potential reduced ability to react to and escape from rapidly developing fires. This is a national risk, but is particularly acute in London, which has the highest concentration of high-rise residential buildings, and has a [disability level of 15.7% of the population](#), or 1.2 million people.

The impact assessment accompanying this consultation notes that the proposals will make e-bikes more “accessible”, but has not sufficiently considered that safer e-bikes produced to UK product safety standards are expensive, and consequently unaffordable for large sections of the population. Many people, including vulnerable groups, instead choose to adapt or modify their bikes using cheap online products (conversion kits, lithium-ion batteries) which are more prone to developing faults and pose an increased fire risk. These lower-quality products may proliferate as a result of the Department’s proposals, potentially leading to a range of increased risks to people from vulnerable groups.

The impact assessment highlights that “if e-cycles are used incorrectly on the footway, older people may be affected more severely by collisions and may pose greater safety

risks to blind people.” This risk is limited to incorrect use on the footway, but these demographics are also at risk elsewhere, e.g., where they are crossing cycle lanes and roadways. The proposals will also increase the risk to other mobility scooter users that make use of cycle lanes, due to a faster average speed than other cycle lane users.

It is essential that the equalities impact assessment, which the Department states it will produce after the consultation, should be published before any decision is made. This must consider both the benefits that the changes to EAPC motor power will have on people with a disability and the significant increased risks.

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

Please see answer to question 8 above.