

The Safety of Electric-Powered Micromobility Vehicles and Lithium Batteries Bill

Fires caused by lithium-ion batteries in e-scooters and e-bikes (e-micromobility) have quadrupled since 2020, resulting in deaths, hospitalisations, homelessness and multimillion-pound losses. This trend has caused injuries to at least 190 people and claimed eight lives. The UK is now facing the likelihood of nearly one e-bike or e-scooter fire per day this year, a significant increase from just over one per week in 2020. Urgent government intervention is crucial to address this escalating danger to lives.

While no single solution can completely resolve the safety concerns related to e-micromobility, the proposed regulatory measures in this Bill offer significant strides in mitigating the risks and tragic impacts these devices pose within our communities. By enabling safer access, use, and storage for these sustainable transportation modes, these solutions also support the UK's net-zero objectives.

Clause 1

This would require third party approval for e-bikes, e-scooters and their batteries before entering the UK market, which follows a similar requirement introduced in New York City after a series of deadly fires. Currently, these vehicles and their batteries can meet safety standards through self-declaration by manufacturers, aligning with existing regulations for many electrical items. Exceptions apply to items such as fireworks, heavy machinery, and medical devices. Adding this clause would classify lithium-ion batteries for e-bikes and e-scooters as high-risk, requiring mandatory third-party validation for safety compliance.



Clause 2

The incidents of fires and harmful fumes resulting from lithium-ion batteries in waste vehicles and landfills are increasing. These fires can occur due to faulty batteries or when batteries are crushed during compaction. There are reportedly more than 200 landfill fires annually, making up 48 percent of all fires, costing £158 million and contributing significantly to pollution. This clause requires the government to establish regulations for the safe disposal of used lithium-ion batteries. These rules might involve manufacturers using labels to caution against improper battery disposal and offering information about battery chemistry.



Clause 3

This clause addresses specific fire concerns, ensuring safer access, charging, and storage of lithium-ion batteries.

While an outright ban is suggested by some, conversion kits remain a financially practical solution, especially for gig economy workers reliant on sustainable transportation. Implementing a standardised approach to kits could establish design and installation controls, mitigating foreseeable risks.



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The last part of this clause requires government consideration of restricting the sale of multi-outlet universal chargers for e-bikes and e-scooters, through consultation with key stakeholders. Implementing charger standards, whether proprietary or non-proprietary, ensures compatibility with the battery. A proprietary system restricts charging to the dedicated e-bike charger, while a non-proprietary charger incorporates safety measures in the charger-battery communication. These standards prevent overcharging and safeguard against overcurrent, overtemperature, short-circuit, and accidental misconnection, reducing the risk of fire.