



Department  
for Transport

# **Consultation on when to end the sale of new non-zero emission L-category vehicles**

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# Ministerial Foreword from Trudy Harrison MP, Minister of State for Transport



Climate change remains the biggest challenge of our generation. However, as we address this huge challenge, we are also given a once in a generation opportunity to invest in a green economy, create a better lived environment, and ensure a diverse transport system that works for all.

We have grasped this unique chance to showcase our environmental leadership. We have already committed to phasing out fossil fuel use across road transport, with sales of new petrol and diesel cars and vans ending as early as 2030; all new cars, vans and trucks of 26 tonnes and under being zero emission by 2035; and 2040 as a backstop for all new road vehicles.

It is therefore important that L-category vehicles do not remain fossil fuelled as the rest of the transport fleet cleans up. Last year we delivered our landmark Transport Decarbonisation Plan (TDP). A key commitment was to consult on a phase out date of 2035, or earlier if a faster transition appears feasible, for the sale of new non-zero emission powered two and three wheelers (and other L-category vehicles).

Zero emission L-category vehicles don't just offer us a vital reduction in CO<sub>2</sub> emissions; they open up a future where our roads are less congested, and air and noise pollution are reduced across our local communities.

This vision is rapidly becoming a reality. Zero emission L-category vehicles are now hitting the market in increasing numbers. These vehicles have a wide range of uses – whether that's to bring deliveries to your door in minutes; to travel the open roads on longer leisure trips; or to open up a whole range of educational and employment opportunities to those in the most disadvantaged communities. I am determined to further develop the electric capability of the UK's iconic motorcycle industry which will open up the opportunity for new skilled manufacturing jobs across the UK.

I stress that this consultation is not about imposing restrictions; it is about addressing the climate change challenge and creating energy independence, providing certainty to industry and consumers, and ensuring the creation of a zero emission L-category industry fit for the 21<sup>st</sup> Century and beyond.

We are determined to ensure our industry is not just prepared for decarbonisation, but leading it. The Motorcycle Industry Association and Zemo Partnership's action plan for Government and industry on zero emission powered light vehicles is a great start to addressing these challenges. Charging infrastructure, technological development and the role of last-mile deliveries will all need to be addressed. Deciding clear and certain end of

sales dates as soon as possible will drive investment and ensure that these targets are achievable.

This consultation marks the start of a new journey to bring us a step closer to net zero, level up the economy and deliver a wide range of other benefits for society. I am certain that the dates proposed in this document will achieve this.

## Executive summary

1. Powered light weight vehicles (PLVs) with two, three or four wheels are classified in seven groups under the L-category. The groups are based on weight, power output, number of wheels and seating layout. Familiar L-category vehicles include mopeds and motorcycles, however, the category also includes motor tricycles, quad bikes and quadricycles.
2. Transport remains the largest contributor to domestic UK greenhouse gas (GHG) emissions, accounting for around one quarter of emissions in 2020. In July 2021, the Government published Decarbonising Transport: A Better, Greener Britain that put the transport sector on an ambitious but credible pathway to achieve net zero emissions by 2050.
3. A key commitment was to end the sale of all new non-zero emission road vehicles by 2040 at the latest. When complete this will have addressed the single largest contributor to UK transport carbon emissions, removed the other toxic by-products of burning hydrocarbons in road vehicles as well as reducing vehicle noise pollution.
4. L-category vehicles make up around 3.3% of licensed vehicles in the UK and are responsible for just 0.4% of transport's GHG emissions. But the opportunity for new zero emission beyond carbon is substantial. They offer a range of wider benefits due to their lighter weight and reduced size compared to other road vehicles. This can reduce road congestion, as well as helping to remove air and noise pollution. Their smaller size means they complement our ambitions to increase the use of public transport and availability of cycling and walking infrastructure.
5. The proposed end of sales dates for new, non-zero emission L-category vehicles in this consultation reflect the need for these vehicles to deliver their contribution to reaching net zero. Government has already committed to the below phase out dates:

**Table 1: Phase out dates for other new non-zero emission road vehicles**

2030	2035	2040
New cars and vans that run solely on petrol or diesel	New non-zero emission cars and vans	All new non-zero emission road vehicles

	New non-zero emission HGVs weighing 26 tonnes and under	
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6. Zero emission vehicles (those with no exhaust emissions) offer an opportunity to create jobs, strengthen British industry, cut emissions and keep Britain moving.
7. We are interested in receiving views on the following end of sales dates for new non-zero emission L-category vehicles:
  - **2035** (or earlier if a faster transition seems feasible) for all L-category vehicles
  - **2030** (or earlier if a faster transition seems feasible) for L1, L2, L3e-A1, L6 & L7

**Table 2: Phase out dates for new non-zero emission L-category vehicles**

2030	2035	2040
New non-zero emission L1, L2, L3e-A1, L6 and L7	New non-zero emission L-category vehicles  (or earlier if a faster transition seems feasible)	All new non-zero emission road vehicles

8. Also included in this consultation are questions on:
  - whether derogations and exemptions may be needed in certain cases;
  - candidate alternative fuels for powering future L-category vehicles;
  - regulatory options for delivering the end of sales dates; and
  - areas of the sector that would benefit from additional Government support.

## How to respond

The consultation period began on 14 July 2022 and will run until 21 September 2022. Please ensure that your response reaches us before the closing date. If you need alternative formats (Braille, audio CD, etc.) of this consultation contact [LcategoryConsultation@dft.gov.uk](mailto:LcategoryConsultation@dft.gov.uk).

Please respond to this consultation using the online survey. This helps our analysis of the responses and enables a more efficient and effective consideration of the issues raised.

Where it is not possible to respond using the online survey, a response pro-forma is available for download on the consultation web page. Completed pro-forma responses should be sent to [LcategoryConsultation@dft.gov.uk](mailto:LcategoryConsultation@dft.gov.uk). Please follow the structure carefully.

If none of the above is possible, then we invite you to provide responses to:

New, non-zero emission L-category consultation  
Great Minster House  
33 Horseferry Road  
London  
SW1P 4DR

Email address: [LcategoryConsultation@dft.gov.uk](mailto:LcategoryConsultation@dft.gov.uk)

When responding, please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of a larger organisation, please make it clear who the organisation represents and, where applicable, how the views of members were assembled.

If you have any further questions about the consultation process please email [LcategoryConsultation@dft.gov.uk](mailto:LcategoryConsultation@dft.gov.uk).

## Freedom of Information

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the Freedom of Information Act 2000 (FOIA) or the Environmental Information Regulations 2004.

If you want information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.

In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information, we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

The Department will process your personal data in accordance with the Data Protection Act (DPA) and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

## Data Protection

The Department for Transport (DfT) is carrying out this consultation to gather evidence on when to phase out the sale of new non-zero emission L-category vehicles. This consultation and the processing of personal data that it entails is necessary for the exercise of our functions as a government department. If your answers contain any information that allows you to be identified, DfT will, under data protection law, be the Controller for this information.

As part of this consultation we're asking for your name and email address. This is in case we need to ask you follow-up questions about any of your responses. You do not have to give us this personal information. If you do provide it, we will use it only for the purpose of asking follow-up questions.

DfT's privacy policy has more information about your rights in relation to your personal data, how to complain and how to contact the Data Protection Officer. You can view it at <https://www.gov.uk/government/organisations/department-for-transport/about/personal-information-charter>.

Your information will be kept securely on a secure IT system within DfT and destroyed within 12 months after the consultation has been completed.

# 1. Introduction

## Addressing the net zero challenge in transport

- 1.1 Government is committed to going further and faster to tackle climate change and limit global warming to well below 2°C. That is why in June 2019 the UK became the first major global economy to [legislate](#) to end its contribution to climate change by [committing to net zero greenhouse gas emissions \(GHG\) by 2050](#).
- 1.2 The UK is making world-leading progress in cutting our GHG emissions while growing our economy. Between 1990 and 2020 we reduced our emissions by over [49%](#) while growing the economy by over [66%](#). Our net zero commitment requires all sectors of the UK economy to deliver substantial further emissions reductions.
- 1.3 We know we need to go much further, much faster to decarbonise the UK's transport sector, and this formed the basis for [Decarbonising Transport: A Better, Greener Britain](#) which was published in July 2021. Our 'greenprint' for decarbonised transport set out a holistic, bold and ambitious pathway for transport to deliver its contribution to net zero and announced further commitments specifically for L-category vehicles.
- 1.4 To ensure the whole road vehicle fleet decarbonises, government committed to:  
*Consulting on a “phase out date of 2035, or earlier if a faster transition appears feasible, for the sale of new non-zero emission powered two and three wheelers (and other L category vehicles)”.*
- 1.5 This consultation delivers on this commitment.

## L-category vehicle emissions

- 1.6 Our transport network helps the UK's businesses and gets people and goods travelling around the country. But in 2020, it was responsible for [around one quarter](#) of the UK's greenhouse gas (GHG) emissions. Our commitment to net zero requires all sectors of the UK economy, including transport, to play their part and deliver substantial emissions reductions to end the UK's contribution to climate change.
- 1.7 Road vehicles are responsible for [91%](#) of the UK's annual domestic transport GHG emissions. L-category vehicles make up around [3.3%](#) of licensed vehicles in the UK are responsible for [0.4%](#) of our annual domestic GHG transport emissions.
- 1.8 While cars and vans vastly outnumber motorcycles on UK roads, motorcycles are an important and sizeable vehicle population, with [1.3 million](#) currently licensed in 2021.

We do not want to see them remaining fossil-fuelled as the rest of our vehicles clean up.

- 1.9 Despite holding competence, the European Union did not regulate CO<sub>2</sub> emissions from L-category vehicles. Our exit has provided the opportunity for the UK to develop its own regulatory approach to decarbonising its entire fleet of new road vehicles.
- 1.10 Government's [Net Zero Strategy: Build Back Greener](#) announced we would introduce a zero emission vehicle (ZEV) mandate setting targets requiring a percentage of manufacturers' new car and van sales to be zero emission each year from 2024. We will also continue to regulate the tailpipe CO<sub>2</sub> emissions of new non-zero emission cars and vans to limit their emissions until 100% of new sales are zero emission.
- 1.11 This regulatory framework could subsequently be applied to all forms of new road vehicles sold in the UK, including L-category vehicles. This consultation therefore seeks initial views on extending a ZEV mandate to manufacturers of L-category vehicles. The Government will consider future consultation responses and work with industry to find the most suitable regulatory framework option for L-category vehicles.

## Scope

- 1.12 L-category vehicles are a classification of motorised road vehicles in regulation that categorises powered light weight vehicles (PLVs) with two, three or four wheels into seven groups. The groups are based on weight, power output, number of wheels and seating layout. Familiar L-category vehicles include mopeds and motorcycles, however, the category also includes motor tricycles, quad bikes and quadricycles.
- 1.13 This consultation relates to the end of sales dates for new non-zero emission L-category vehicles only. It does not consider existing vehicles or those on the second-hand market. Other types of powered light vehicles, such as electric bicycles, electrically assisted pedal cycles (EAPCs) and e-step scooters are out of scope.
- 1.14 For the purposes of this consultation, non-zero emission L-category vehicles are those which produce harmful emissions at the exhaust. This includes petrol, diesel, low carbon fuelled and hybrid L-category vehicles. Only fully zero emission technologies will adequately address GHG emissions, air quality and other tailpipe pollutants from L-category vehicles. Lifecycle emissions are out of scope.
- 1.15 L-category encompasses a wide range of vehicles with a range of different uses and requirements that may need a varied approach to fossil fuel phase out. A breakdown of each sub-category and sub-subcategories has been included at Annex B.
- 1.16 This consultation also seeks early views on the regulatory framework to enforce these end of sale dates.

## Zero emission L-category use

- 1.17 Zero emission L-category vehicles can be an accessible, affordable, efficient and clean form of mobility that can help to reduce congestion, improve urban air quality and reduce noise. Their smaller size means they complement our ambitions to increase the use of public transport and availability of cycling and walking infrastructure. The Department continues to work with industry to find the best role for zero emission L-category vehicles as part of the wider transport fleet (more at para 1.30).

- 1.18 Decarbonising all these vehicles carries the added benefits of reducing vehicle noise and toxic exhaust pollution, helping transform streets and communities blighted by traffic pollution. Decarbonisation of the whole of the UK's road transport sector is crucial in ensuring the UK is able to meet legally binding carbon reduction targets.
- 1.19 The table below sets out some of the main characteristics and usages of the L-category sub-categories. Further technical detail is provided at Annex B.

**Table 3: An Overview of L-category Subcategories<sup>1</sup>**

Sub-category	Use	Speed cap
 <p>L1 &lt;4kw</p>	Powered cycles and mopeds are the smallest L-category vehicles. Their small size makes them ideal for short urban trips, commuting or as a first L-category vehicle for younger users. These vehicles are common in the last mile delivery sector.	28mph/45kph
 <p>L2 &lt;4kw</p>	Light tricycles offer a three-wheel alternative to mopeds. Their small size makes them ideal for short urban trips, commuting and in the last mile delivery sector.	28mph/45kph
 <p>L3 00kw</p>	Motorcycles are by far the most common L-category vehicle. There are three sub-main groups. Smaller motorcycles often are used for the same purposes as mopeds, such as last mile deliveries or commuting. Larger motorcycles, with a greater power output are often used for leisure and touring over longer distances.	n/a
 <p>L4 00kw</p>	These vehicles are motorcycles (L3) fitted with a side car. Due to this, they are mostly used for short journeys or leisure purposes, with very few new registrations.	n/a
 <p>L5 00kw</p>	Heavy tricycles offer a three-wheel alternative to motorcycles and are faster and more powerful versions of L2s. They can be used for last mile deliveries, commuting for leisure. They seat up to five passengers and are used as small taxis in some countries.	n/a
 <p>L6 &lt;6kw</p>	Light quadricycles have four wheels and are limited to two passengers. Their power and speed are capped making them ideal for shorter urban journeys and commuting. They can be used in commercial settings as an alternative to larger vehicles (i.e. cars and vans) in the last mile delivery and courier sector. This subcategory also includes light on road quadbikes.	28mph/45kph
 <p>L7 &lt;15kw</p>	Heavy quadricycles have four wheels. This is a diverse subcategory that includes heavier quadri-mobiles, heavy on road quadbikes and all terrain quadbikes. They have a variety of uses and can be for transporting	56mph/90kph

<sup>1</sup>The L-category graphics in this table have provided by the Motorcycle Industry Association

	passengers or cargo. Some utility vehicles have a loading bed area. Quadri-mobiles can be used for leisure, commuting or as an alternative to larger vehicles (i.e. cars and vans) in the last mile delivery and courier sector.	
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## Developing zero emission L-category vehicles in the UK

- 1.20 This sector has a rich history in the UK, with British motorcycles dominating the domestic and international markets for the first half of the 20<sup>th</sup> Century. The UK has produced some of the world’s top superbike racers and is also home to some of the world’s oldest motorcycle racing clubs.
- 1.21 The industry is undergoing a UK revival; and our zero-emission L-category fleet is growing. In 2021, there were over 5800 newly licensed battery electric L-category vehicles. This is up from just over 2400 licensed in 2020 (see Table 4 below).
- 1.22 Analysis from [Oxford Economics](#) estimated that the combined total impact of all quantified motorcycle-related activities contributed over £1.88 billion to the UK economy and supported over 35,000 jobs in 2019<sup>2</sup>. The potential for the growing zero emission L-category sector here in the UK is significant.
- 1.23 British based or headquartered manufacturers include Triumph (Hinckley), Norton (Solihull), Herald (Cambridgeshire); BSA (Coventry); Maeving (Coventry) and CCM (Bolton) among others. Triumph, BSA and Norton are developing new electric motorcycles in projects co-funded by Government. Maeving are an all-electric motorcycle manufacturer.

### Project Triumph TE-1

- 1.24 Triumph is the largest UK owned motorcycle manufacturer and one of the top sellers in the UK. The iconic brand celebrated its 120th anniversary this year. Triumph’s modern era began in 1990 and is headquartered in Hinckley, Leicestershire.
- 1.25 Project Triumph TE-1 is an innovative collaboration between industry, academia and Government, designed to create UK electric motorcycle capability. The project is supported and co-funded by the Department for Business, Energy & Industrial Strategy (BEIS) and the Office for Zero Emission Vehicles, via Innovate UK. This project has helped Triumph to develop their zero emission capability and to identify L-Category vehicles, specifically L1 and L3e-A1 vehicles, which could be commercially viable and contribute significantly to emission reductions in the near future.

### The Electric BSA Project

- 1.26 The Birmingham Small Arms Company Ltd (BSA) motorcycle division was established in 1903. It then went on to become the largest supplier of motorcycles to the Allied Forces during the Second World War. By the 1950s, BSA was the world’s largest motorcycle maker, with one in every four motorcycles sold worldwide sporting

<sup>2</sup> These figures are taken from Fig. 25 in the referenced report and include the effect of cross-border supply chain links. GDP impact has been converted from euros to pound sterling at a conversion rate of 0.84.

the BSA badge. Manufacturing operations ended in the 1970s but now the brand, under new international ownership, is back and operating in Coventry, West Midlands.

- 1.27 The Advanced Propulsion Centre (APC) works to accelerate the industrialisation of zero emission vehicle technologies in the UK and in 2021 awarded BSA a £4.6 million grant from the UK Government to support development of zero emission motorcycles.
- 1.28 Through the Electric BSA project, BSA will develop a modern-retro innovative motorcycle that runs on a battery powered electric motor. The project is expected to create over 250 jobs here in the UK and aims to reduce carbon emissions from motorcycles. It will result in strengthening of the L-category zero emission supply chain and accelerate the UK's journey towards a green future.

### International Context

- 1.29 Our exit from the European Union has provided the opportunity for the UK to develop its own approach to decarbonising its entire fleet of new road vehicles. This is a once in a generation opportunity to lead the way in zero-emission L-category vehicles. Leading the global move to zero emission L-category vehicles offer the opportunity to create new clean jobs and strengthen British industry.

## The current picture

### Zero Emission Powered Light Vehicle Action Plan

- 1.30 Decarbonising Transport: A Better, Greener Britain committed to delivering an action plan, utilising the strategic partnership between Motorcycle Industry Association (MCIA) and Zemo Partnership, setting out how to build new UK opportunities for zero emission light powered two, three and four wheel vehicles. Government warmly welcomed publication of the joint industry [action plan](#) in February 2022 and will continue to engage with industry and other stakeholders in the sector to support delivery.
- 1.31 We will build on our existing support in this segment, to benefit urban logistics and wider mobility and look to grow a new UK industrial supply chain. The action plan centres around work on innovation in urban logistics and personal mobility and sets out the steps needed to stimulate and coordinate activity in this area. The actions focus particularly on rural mobility, domestic manufacturing and supply chains, vehicle regulation, a review of grants and incentivisation, public awareness, licensing, engagement with Local Authorities and electric vehicle charging infrastructure. We have published guidance to help local authorities deliver this support for riders.

### Charging infrastructure

- 1.32 With the appropriate cables some L-category vehicles can use the same chargepoints as electric cars and vans, but have a shorter recharging time due to the smaller size of their battery. Some have detachable batteries that can be charged on a three-pin plug in the home or office.

- 1.33 Government's plans for electric vehicle (EV) infrastructure are set out in more detail in the [2035 Delivery Plan](#) and recent [EV Infrastructure Strategy](#). These set out our vision for what is needed to support the transition to zero emission cars and vans and roles for the public and private sectors in achieving it. This will ensure sufficient infrastructure is provided at the pace required, and that consumers needs are met. Many of the principles are relevant to charging of electric L-category vehicles.
- 1.34 Government has helped fund the installation of over [358,000](#) private chargepoints in homes and business across the country with almost [30,000](#) in the public network. We are committed to working with industry to accelerate the pace of rollout further, which will benefit zero emission L-category sector, as well as users of other vehicles.

### Vehicle incentives and grants

- 1.35 Government currently provides financial support for those wishing to purchase electric motorcycles and mopeds. [The Plug-in Motorcycle Grant](#) helps to reduce the up-front cost differences between electric vehicles and emission producing vehicles.
- 1.36 The grant pays for 35% of the purchase price for selected models, up to a maximum of £500 for motorcycles and £150 for mopeds. To qualify, vehicles must have no exhaust CO<sub>2</sub> emissions, travel at least 50km (motorcycles) or 30km (mopeds) between charges and have a recommended retail price (RRP) of less than £10,000, including VAT and delivery fees.

## 2. Consultation Proposals

### **L-category vehicles and their pathways to zero emission**

The sale of all new non-zero emission L-category vehicles should end by 2035, though the sale of some should end by 2030, or earlier if a faster transition seems feasible

- 2.1 The L-category industry is different to the wider automotive industry. Whilst smaller, the zero emission sector is growing, but range and choice lags that now seen with cars. A one size fits all approach to phase out dates is not appropriate for the L-category sector and certain subcategories within the sector are easier to decarbonise than others. For example, 41.65% of new L1 vehicles registered in 2021 were already battery electric, compared with just 2.86% of L3s.
- 2.2 We are proposing to introduce different dates for requiring all new L-category vehicles to be zero emission depending on their sub-category. We want to reflect the current status of zero emission technology and clearer decarbonisation pathway for certain vehicles, but ensure we respect the diverse characteristics of each vehicle type. This also is likely to provide the simplest approach for industry and consumers and a clear path for regulation and enforcement. However, we are open to views on proposing dates based on other factors such as engine size or weight.
- 2.3 In 2020, the average age since first registration of a motorbike in the UK was over 15 years. So, to deliver net zero by 2050 we propose the last GHG emitting L-category vehicles are sold no later than 2035 with some subcategories phased out earlier.

DfT/DVLA Licensing Statistics

**Table 4: New L-category vehicle registrations by fuel type.**

Sub-category	2019			2020			2021		
	Total	Electric	Electric %	Total	Electric	Electric %	Total	Electric	Electric%
L1	5874	1040	<b>17.7%</b>	6684	1325	<b>19.82%</b>	6595	2747	<b>41.65%</b>
L2	12	4	<b>33.33%</b>	30	19	<b>63.33%</b>	64	47	<b>73.44%</b>
L3	97736	560	<b>0.57%</b>	92448	887	<b>0.96%</b>	99662	2847	<b>2.86%</b>
L4	1	0	<b>0%</b>	2	0	<b>0%</b>	4	0	<b>0%</b>
L5	736	5	<b>0.68%</b>	863	4	<b>0.46%</b>	877	14	<b>1.60%</b>
L6	4	4	<b>100%</b>	2	2	<b>100%</b>	10	10	<b>100%</b>
L7	750	120	<b>16%</b>	958	168	<b>17.54%</b>	888	165	<b>18.58%</b>

**L1 (light two-wheel powered vehicles, including mopeds) and L2 (light tricycles / 3 wheeled mopeds)**

- 2.4 The smallest L-category vehicles fall into L1. Table 3 shows that registrations in this category were already 19.82% battery electric by the end of 2020. Figures from 2021 show that electric sales in the L1 sub-category were over 41%, more than double 2020 figures. Therefore, we are proposing that the sale of new non-zero emission L1 vehicles should be ended by 2030.
- 2.5 The smallest three-wheel L-category vehicles are L2. The numbers of L2 vehicles sold is very low when compared with the other sub-categories. Of the 64 L2s newly registered in 2021, 73.44% were zero emission. We propose the sale of new non-zero emission L2 vehicles should also be ended by 2030 in line with progress seen in L1.
- 2.6 The growing number of zero emission L1 models are increasingly popular. Using battery electric technology, they are suitable for a range of uses and are increasingly common in the last mile delivery sector. These are already reaching price parity with their petrol equivalents. This technology is largely mature and, as batteries get cheaper and the supply chain scales up, this technology is a direct swap for petrol.
- 2.7 L1 mopeds tend to need smaller batteries to power them, with many making use of removable or battery swap technology. A spare battery can be swapped during a journey when the first battery becomes depleted. This allows for faster journeys without the need factor in recharging times. These smaller batteries have shorter

charging times and most L1 mopeds (and removable batteries) are charged safely and conveniently on a three-pin plug, rather than relying on dedicated infrastructure.

### L3 (motorcycles), L4 (motorcycles with sidecar) and L5 (heavy tricycles)

- 2.8 L3s see the largest number of sales but currently have a very low adoption of zero emission technologies. In 2021, only 2.86% of newly registered L3 vehicles were battery electric. Whilst there are zero emission L3 vehicles available on the market, there is much less choice than for L1 vehicles and they are yet to reach price parity with their fossil fuelled equivalents.
- 2.9 At the moment, batteries in L3s take up considerably more of the vehicle's size and weight than an equivalent petrol powertrain, impacting both range and price. Though this will change, it is a challenge for motorcycles (L3), compared to larger L-category vehicles or cars, as the available space in the body of the vehicle is particularly limited. Today, battery powered L3 vehicles have a much shorter range than typical petrol models, as the extra weight from batteries increases the overall weight.
- 2.10 L4 vehicles – two-wheel motorcycles with sidecar – are essentially a subset of L3s and the number of newly registered vehicles each year in the UK is very low. L5 vehicles – heavy motor tricycles – also make up a much smaller section of the market than L3 vehicles though like L4s we expect them to benefit from the same progress in zero emission technology. We propose to introduce the same phase out dates across all L3, L4 and L5 vehicles and that this should be not later than 2035, earlier if feasible.

### L3e-A1 (low performance motorcycles)

- 2.11 L3s can be broken down further into three distinct sub-subcategories. The smallest of these is L3e-A1 encompassing low performance motorcycles up to 125cc and 11kW of power. These are likely to be more compatible with the currently available zero emission technologies due to their smaller size and lower power and are likely to be the first models to move to zero emissions in L3. We are therefore proposing to end the sales of new non-zero emission L3e-A1 vehicles by 2030 at the latest.

### L6 (light quadricycles) and L7 (heavy quadricycles)

- 2.12 L6 and L7 vehicles lend themselves more readily to zero emission technology when compared to L3 vehicles as they have more space to hold a larger battery and do not have to be moved by hand, i.e. taken off a kickstand and manoeuvred by hand. Some are all-terrain or heavy on-road vehicles though with energy and powertrain requirements specifically tailored to their duty cycles and use requirements.
- 2.13 Electric L7 vehicles were over 18.58% of UK market sales in 2021. We expect to see the release of a large range of new electric quadricycles into the UK market, highlighting this technology is already available, affordable and practical.
- 2.14 L6 category vehicles are typically used in lighter duty cycles and lends them more readily to early adoption of zero emission technology, as can be seen in the higher

uptake figure for electric models. Though absolute numbers are low, 100% of new L6 vehicles registered in 2021 were battery electric.

2.15 We propose to end the sale of new non-zero emission L6 and L7s by 2030.

## Key proposals / dates being consulted on

2.16 Government is proposing to end of new, non-zero emission L-category vehicles by:

- 2030 or earlier if a faster transition seems feasible for L1, L2, L3e-A1 L6 and L7 sub-categories; and by
- 2035 or earlier if a faster transition seems feasible for all other sub-categories.

**Table 5: Proposed end of sale dates for new non-zero emission L-category vehicles**

2030	2035
L1	All other L3 vehicles
L2	L4
L3e-A1	L5
L6	
L7	

**Question 1:** Do you agree or disagree with our approach to end the sale of all new non-zero emission L-category vehicles by 2035 at the latest? Please explain your answer.

- Agree
- Disagree
- Don't know

**Question 2a:** Do you agree or disagree with our approach to end the sale of new non-zero emission L-category vehicles in the L1, L2, L3e-A1, L6 and L7 subcategories by 2030? Please explain your answer.

- Agree
- Disagree
- Don't know

**Question 2b:** What are your views on ending the sale of new non-zero emission L1 vehicles before 2030?

## Derogations and Exemptions

2.17 We recognise there may be specific cases where derogations are required, such as for specialist use vehicles, including military service and emergency vehicles, and/or parts of the market which may need further time to transition, e.g. niche manufacturers. We are seeking views on this approach.

**Question 3: Should there be or should there not be derogations as part of the phase out of new non-zero emission L-category vehicles and if so what?**

- Yes, there should be derogations
- No, there should not be derogations
- Don't know

## Fuels

2.18 Government remains technology neutral and although large portions of the L-category market are already electrifying using batteries, we recognise manufacturers are working with alternative technologies.

2.19 To allow industry time, whilst acknowledging the need to reduce our dependency on fossil fuels, the Government is also open to considering how alternative and other low-carbon fuels may play a role in the transition period from internal combustion engine vehicles to fully electric vehicles. This includes hydrogen, bio and synthetic fuels.

2.20 Government remains committed to ending the sale of all new non-zero emission road vehicles by 2040 at the latest, with 2035 the proposed date for L-category vehicles.

**Question 4: What role, if any, do you think alternative fuels have to play in the transition period to zero emission L-category vehicles?**

## ZEV mandate

2.21 Government's [Net Zero Strategy: Build Back Greener](#) announced that we will introduce a zero emission vehicle (ZEV) mandate setting targets requiring a percentage of manufacturers' new car and van sales to be zero emission each year from 2024. Our [Green Paper on a New Road Vehicle CO<sub>2</sub> Emissions Regulatory Framework](#) set out that any framework could subsequently be applied to all forms of new road vehicles sold in the UK. The Green Paper asked:

*“Should the preferred regulatory approach be extended to all L-category vehicles or should the diversity of the sector (motorbikes, mopeds, motorised tricycles, quadbikes, motorised quadricycles etc) necessitate different approaches”*

2.22 Subject to the final agreed phase out dates, a ZEV mandate could be introduced for L-category vehicles, setting a 100% zero emission target in line with agreed date.

2.23 The scope of this consultation is to gather views on phase out dates for new non-zero emission L-category vehicles. It does not consider the detail of how a regulatory

framework might deliver the dates, but we are seeking early views on possible target levels for a ZEV mandate and uptake trajectories for L-category vehicles out to 2030/35 in question 5 below.

- 2.24 Whilst new L-category vehicles are not currently subject to CO<sub>2</sub> emissions regulation, some undergo a CO<sub>2</sub> emissions test procedure, known as the World Motorcycle Test Cycle, which could be used as the basis from which to set CO<sub>2</sub> emissions targets.

**Question 5: What are your views on regulating L-category vehicles using a ZEV mandate target for manufacturers and/or introducing CO<sub>2</sub> emissions targets for L-category vehicles, as is currently done for new cars, vans and HGVs?**

## **Government support for the zero emission L-category sector**

- 2.25 Decarbonising Transport: A Better, Greener Britain and the recently published joint action plan for zero emission powered light vehicles from the Motorcycle Industry Association (MCIA) and Zemo Partnership both highlighted the opportunity from reform of the delivery last mile. There is huge potential to create healthier and more liveable places, removing toxic fumes from our most heavily congested spaces. We are committed to transforming the last mile into an efficient and sustainable delivery system. We will work with industry, academia, and other stakeholders to understand how innovation in the L-category sector can benefit the UK delivery market.
- 2.26 To achieve the full benefits, we are seeking views on the role of central and local government, and others, in supporting the zero-emission L-category sector and how we can best work together, and with others, to build new UK opportunities for the industry.

**Question 6: What other support might be needed to encourage the uptake of zero-emission L-category vehicles as part of a transformation of last mile deliveries?**

## What will happen next

A summary of responses, including the next steps, will be published within three months of the consultation closing. Paper copies will be available on request. The enforcement route for the end of sale dates for new non-zero emission L-category vehicles is to be decided. Consulting on ending the sale of new non-zero emission L-category vehicles is part of [Decarbonising Transport: A Better, Greener Britain](#).

If you have questions about this consultation please contact:

New, non-zero emission L-category consultation  
Great Minster House  
33 Horseferry Road  
London  
SW1P 4DR

Email address: [LcategoryConsultation@dft.gov.uk](mailto:LcategoryConsultation@dft.gov.uk)

## Annex A: Full list of consultation questions

**Question 1:** Do you agree or disagree with our approach to end the sale of all new non-zero emission L-category vehicles by 2035 at the latest? Please explain your answer.

- Agree
- Disagree
- Don't know

**Question 2a:** Do you agree or disagree with our approach to end the sale of new non-zero emission L-category vehicles in the L1, L2, L3e-A1, L6 and L7 subcategories by 2030? Please explain your answer.

- Agree
- Disagree
- Don't know

**Question 2b:** What are your views on ending the sale of new non-zero emission L1 vehicles before 2030?

**Question 3:** Should there be or should there not be derogations as part of the phase out of new non-zero emission L-category vehicles and if so what?

- Yes, there should be derogations
- No, there should not be derogations
- Don't know

**Question 4:** What role, if any, do you think alternative fuels have to play in the transition period to zero emission L-category vehicles?

**Question 5:** What are your views on regulating L-category vehicles using a ZEV mandate target for manufacturers and/or introducing CO<sub>2</sub> emissions targets for L-category vehicles, as is currently done for new cars, vans and HGVs?

**Question 6:** What other support might be needed to encourage the uptake of zero-emission L-category vehicles as part of a transformation of last mile deliveries?

## Annex B: L-category Guide

An L-category guide is attached separately which has been developed with the Motorcycle Industry Association. This provides a detailed technical breakdown of each of the L-category subcategories.

## Annex C: Consultation principles

The consultation is being conducted in line with the Government's key consultation principles which are listed below. Further information is available at <https://www.gov.uk/government/publications/consultation-principles-guidance>

If you have any comments about the consultation process please contact:

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Department for Transport  
Zone 1/29 Great Minster House  
London SW1P 4DR

Or email [consultation@dft.gov.uk](mailto:consultation@dft.gov.uk)