

# NMC response to the Department for Transport Consultation on when to end the sale of new non-zero emission L-category vehicles

## 1. Introduction

- 1.1 The National Motorcyclists Council (NMC) welcomes the opportunity to respond to the Government's Consultation on when to end the sale of new non-zero emission L-category vehicles.
- 1.2 The NMC draws together the UK's motorcyclists' representative national organisations, which covers a wide spectrum of motorcycle use from road riding, green road riding, heritage motorcycling, motorcycle sport, motorcycle safety, the motorcycle trade and the service sector. The collective membership of these organisations and its numerous affiliates, is around 100,000 individual motorcyclists, with broader linkages to riders via the NMC's partner organisations. The NMC's mission is to work together to help assure a positive and sustainable future for motorcycling.
- 1.3 Motorcycling is a dynamic part of society and transport. It is a transport alternative and source of leisure and lifestyle which is enjoyed by over a million people today. It makes a positive contribution to society's vitality, the environment and the economy. Powered Two Wheelers (PTW) of all ages already contribute to a low carbon future. PTW use reduces traffic congestion.

All references and links in this document are repeated in full in section 5.

# 2. Summary of the NMC Position.

## 2.1 Headline Response

- 1. While recognising the need to progressively reduce Co2 emissions from new vehicles towards the 2050 net-zero goal, the NMC does not support the approach to decarbonising L-Category vehicles as proposed in the consultation. The Council does not support arbitrary UK only targets for ending the sale of new non-zero emission motorcycles and believes that the UK should instead move towards net-zero goals on the basis of internationally agreed targets and strategies, working with both motorcycle riders and the industry to develop what has already been commenced under the PLV Action Plan.
- The NMC believes that all technologies and innovations should be 'in play' –
  including clean and synthetic fuels and not just battery electric only. The
  Government needs to demonstrate more ambition through supporting innovation in
  these areas, rather than restricting development to just one narrow pathway.
- 3. The NMC notes the Prime Minister's view expressed on September 8<sup>th</sup> 2022 that Government policy should "... ensure we deliver net zero by 2050 in a way that is probusiness and pro-growth." The NMC believes that decarbonisation policy should also



- be pro-consumer choice. It is a basic principle that products entering the marketplace need to meet the wide range of different rider needs, otherwise the market can't exist.
- 4. The NMC welcomes the Prime Minister's announcement of a review of net zero policy which is being led by Chris Skidmore MP. The Council urges the review to also consider closely a more appropriate path towards L-Category vehicle decarbonisation.
- 5. The NMC welcomes the Government's position that there will be no ban on the use of ICE motorcycles already manufactured and that ICE motorcycles can continue to be traded on the used motorcycle market. This avoids the spectre of 'mass scrappage' of ICE motorcycles -with the associated highly negative environmental costs.

#### 2.2 In More Detail

- 1. While smaller battery electric PTWs may become predominant in terms of urban mobility in the future, PTWs with already lower polluting internal combustion engines (ICE) will continue have an important role to play.
- 2. Although there are many challenges around the development of low carbon and carbon free fuels, automotive manufacturers (and the aviation industry) are making significant investments in developing synthetic fuels which have the potential to allow ICE technology to continue while being part of the move towards decarbonisation. Other technologies such as hydrogen powered vehicles are also part of the development of new technologies.
- 3. The potential is illustrated in the motorcycle sports sector which aims for all fuels in the MotoGP to be 100% non-fossil origin by 2027.
- 4. The Government is called upon to take a genuinely technology neutral approach. The move towards net zero is a matter which is too technologically detailed to restrict it to battery electrification only. Imposing specific technologies means limiting choice and therefore creating a constraint on innovation.
- 5. Motorcycle manufacture is a global, not local, matter. As a result, the UK must move to globally agreed timetables for net-zero and not introduce arbitrary national timetables in advance of these, which will make little difference to the global CO2 picture in any case. Such an approach could likely lead to market and economic shocks in the UK, including, potentially, market withdrawal by the global manufacturers.
- 6. It is vital that such market and economic shocks are avoided which puts the UK at a disadvantage globally, particularly at a time of rising prices and against a backdrop of fragile global economies, coupled with supply chain issues post-pandemic, the cost of living crisis and as a result of the war in Ukraine.
- 7. Therefore, there should be no arbitrary date for ending the production of new ICE motorcycles which does not align with manufacturing evolution, which creates products which are acceptable to the motorcycle market.
- 8. There needs to be recognition of already much greener motorcycle credentials motorcycles can and already are playing a part in the move towards net zero.



- Protections for the use of historic and classic motorcycles need to be secured –
  including security of supply of fuels. This must be part of the forthcoming Low
  Carbon Fuels strategy.
- 10. A more appropriate approach is to allow the industry and market to develop and accept the appropriate solutions. All decarbonisation technologies should be supported and exploited, while allowing ICE motorcycles, as already greener vehicles, to achieve their lifecycle potential.
- 11. The NMC has committed to work with the industry, government and with our international partners, as decarbonisation policy develops.

# 3. Key Issues Surrounding the Decarbonisation of Motorcycles

#### **Environmental context for motorcycling**

- 3.1 Motorcycles have long been vehicles which have a lower average carbon footprint than other internal combustion engined (ICE) vehicle types. This was most recently illustrated in the European motorcycle industry's publication 'The Economic Importance of Motorcycles to Europe'. This noted that the average emission factor for a European motorcycle (up to 250cc) is 64g/km of Co2 emissions. This is equivalent to around one-third of the respective emissions for a car. These smaller motorcycles (under 250cc, including moped) account for 62% of Europe's powered-two-wheeler fleet—with 22 million such vehicles registered around the European countries. More powerful motorcycles also offer emission savings relative to cars. Motorcycles between 250cc and 750cc (149g/km) and motorcycles over 750cc (163g/km) both have weighted average Co2 emissions factors markedly lower than both petrol and diesel cars (218g/km and 200g/km, respectively).
- 3.2 An MCIA/Zemo study 'PLV Life Cycle Analysis Study' found that in almost every scenario examined in the study, the L-category vehicle produces lower lifetime greenhouse gas emissions per km travelled than the comparison passenger car and van performing the same task. This is found to apply even where a shorter operational lifetime is assumed for the L-category vehicle.
- 3.3 Additionally, the Low Carbon Vehicle Partnership (LowCVP now Zemo) commented in their report on Powered Light Vehicles (L-Category vehicles):

"The whole-life carbon footprint of PLVs compared to conventional passenger cars is expected to be significantly lower owing to their smaller size and weight. The PLV study has estimated the total life-cycle energy consumption of PLVs to be, typically, more than 25% lower than conventional passenger cars. (Route to Tomorrow's Journeys MCIA)

3.4 In general terms, PTWs as a whole contribute very little to overall emissions from vehicles, as was noted by DEFRA in the 2017 <u>draft air quality control plan</u>. This means as the UK moves towards the decarbonisation of road transport, motorcycles and scooters, particularly those compliant with the latest emissions standards, offer part of the 'pathway' towards a cleaner environment. It is also notable that older machines with often low fuel consumption, particularly in the commuter segment, can be part of the 'drive' to reduce Co2 emissions. The zero contribution of PTWs towards road congestion also helps towards this end, as PTWs spend less time on the road during a given commuter journey in particular.



- 3.5 Given the environmental benefits that would arise from a greater use of current motorcycle types, the NMC urges far greater consideration of motorcycling as a lower cost and cleaner form of personal transport which can generate significant carbon savings from road transport right now if supported in government policy right now. This would also unlock other societal benefits as illustrated in the NMC's document 'Motorcycling and the Future of Transport Policy'.
- 3.6 The Government has previously noted that; 'transitionary technologies have an important role to play in reducing emissions in the coming years' (Green Paper on New Road Vehicle Co2 Emissions). It is important that existing low pollution vehicle types already available for the commuting public, such as motorcycles are recognised as playing a role alongside emerging low and zero emission technologies. This will help 'accelerate' the overall reduction of Co2 emissions.

#### **Economic Profile.**

- 3.7 The consultation quotes in 1.22 of the consultation (page 13), a recent study by Oxford Economics which 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.
- 3.8 Where the Study could go further is in areas more related to the activities of motorcyclists themselves. A large amount of GDP related activity takes place as riders interface with the wider world, particularly in areas such as tourism and local events, where local goods and services are supported, which includes accommodation. The Study's authors recognise this and note that; '...it has not been possible to measure the precise economic impact of these services as part of this exercise, but their economic and social role should not be overlooked.' Some major UK events appear to have also been overlooked, as have the economic contribution of a large number of smaller sporting events, plus the positive impacts on local economies through motorcycle leisure and tourism on both tarmac and green roads. This indicates that the economic impact of motorcycling as an activity is likely to be far higher than indicated in the Study.
- 3.9 The most recent study which aimed to quantify this additional economic impact was the 2015 ICF/MCIA study 'Economic Benefits of the UK Motorcycle Industry' This considered the wider economic impacts of motorcycling, which took account of a range of sectors many of which are related to motorcycle rider activity. It found that the sector contributed £5.3billion to the UK economy directly, with a further £2billion in added value. It also found that the industry directly employed more than 58,000 people in around 5,700 businesses.
- 3.10 Although there will have been changes in this profile since the study was published, there is clearly a far higher economic contribution from motorcycling than has perhaps been considered. This reinforces the need to ensure that decarbonising the L-Category sector must not be done in a way that creates market withdrawal, a removal of rider choice and results in the unintended consequence of wider economic shocks to society as a whole. A further reason why it is essential that the UK moves only to internationally agreed strategies for manufacturing in the sector.



#### The Current Picture and PLV Action Plan.

- 3.11 The NMC supports the partnership between the MCIA and Zemo, announced in 2021, aimed at generating a 'road map' towards zero emission new motorcycles. The NMC is participating in this work through the industry's 'UK Motorcycling' forum which is considering a range of decarbonisation issues.
- 3.12 The partnership will require interest and support from a diverse range of manufacturers with operational manufacturing bases worldwide, which feeds a UK market which is a relatively small part of the global 'whole'. The NMC is therefore concerned that what the UK government desires domestically may not be possible without much greater dialogue internationally.
- 3.13 In the UK, motorcycle riders, as those most directly affected by the proposals, welcomes close dialogue with Government and industry on all matters to do with L-Category vehicles and decarbonisation.
- 3.14 Although there have been strong percentage market increases for zero emission motorcycles in the last two years, this is from a very low base and is focussed on the smaller largely scooter based end of the market. The industry has been slow to commence the creation of a mass market in larger and more diverse zero emission types. This has been for various reasons, not least the greater technical challenges posed by the need to adapt technologies and create market acceptable products at a price and with a range that will attract a wider market uptake, than is being faced by the car industry.
- 3.15 One of the knock-on effects of this has been scepticism among the motorcycling public about the electrification of motorcycles. Two 2021 rider surveys, one in the UK, the other Europe-wide (MAG UK and FEMA) revealed that a high percentage of riders who responded are currently unwilling to give up riding ICE motorcycles. This is difficult to ignore, or brush aside. Though a further survey; 'Electric Motorbikes: Who's Buying Them and Why' revealed a more nuanced picture, while illustrating the very real challenges which need to be overcome to gain market confidence.
- 3.16 Successful transition in any field requires those affected to be content with changes proposed. In the case of zero emission motorcycles, particularly in the premium market segments, both current product availability, price point and market penetration suggest that much more will need to be done before a reasonable target date for full zero emission new production can be established. Therefore, it is clear that a different regulatory approach will be needed which recognises where electrification works for the market and where it currently poses challenges which cannot be ignored.

## **Charging Infrastructure**

- 3.17 There is strong concern that EV charging station roll out will not keep pace with growing demand for both car and motorcycle EVs (small motorcycle EVs are a strongly growing market segment. All such chargepoints should mandate a requirement to have charge station technology which is compatible with electric motorcycles.
- 3.18 It should be noted that some non-residential car parks are associated with small businesses on estate where individual landowners may not be in a position to easily install charging facilities in a cost-effective manner. The Future of Transport Regulatory Review consultation noted that



exemptions in certain circumstances will be considered where costs to install are excessive, or there is insufficient electrical supply. The NMC feels these exemptions should be offered.

- 3.19 Requirements for public authorities and ChargePoint providers must include minimum standards for both the technology and minimum provision for electric motorcycle types. Given that vehicle manufacturing standards follow regulatory 'Norms' originating outside the UK, the NMC recommends that in line with such standards, the UK should ensure that domestic regulation allows compatibility with the following specifications. These are described in EU regulation 2019/1745, which the Council recommends remains in retained legislation:
  - For ePTWs up to 3.7 kVA: socket-outlets or vehicle connectors of Type 3A compliant with standard EN 62196-2 (for Mode 3 charging).
  - For ePTWs above 3.7 kVA: at least socket-outlets or vehicle connectors of Type 2 as described in standard EN 62196-2

(Source: ACEM – European motorcycle industry)

## **Future Development**

- 3.20 Table 4 on page 17 of the consultation refers to the evolving UK market for electric L-Category vehicles. This shows steady progress, particularly in the L1 (moped) category.
- 3.21 A further interesting perspective has been set out in global projections by BloombergNEF (BNEF) in their latest annual Long Term Electric Vehicle Outlook. The report outlines two scenarios for the uptake of electric transport to 2050 (worldwide), and examines impacts on demand for batteries, materials, oil, electricity, infrastructure and emissions.
- 3.22 The Economic Transition Scenario (ETS), which assumes no new policies and regulations are enacted, is primarily driven by techno-economic trends and market forces. The second scenario investigates what a potential route to net-zero emissions looks like for the road transport sector by 2050. This Net Zero Scenario (NZS) looks primarily at economics as the deciding factor for which drivetrain technologies are implemented to hit the 2050 target.
- 3.23 It is noted that looking at different segments, two- and three-wheelers and buses are already very close to the trajectory needed to achieve BNEF's Net Zero Scenario under the Economic Transition Scenario. The table below illustrates anticipated progress:



Table 1: Road transport segment progress toward net zero

Segment	Current share of road transport CO2 emissions	Current estimated global fleet size	Zero-emission vehicle (ZEV) fleet share in 2050 – Economic Transition Scenario	Level of policy intervention needed to hit Net Zero Scenario (100% ZEV share) by 2050
Two- and three- wheeled vehicles	5%	1.1 billion	Two-wheelers: 74% Three-wheelers: 94%	Almost on track: minor additional measures needed
Municipal buses	1%	3.8 million	84%	Almost on track: minor additional measures needed
Passenger vehicles	53%	1.3 billion	69%	Positive trajectory: moderate additional measures needed
Light commercial vehicles	11%	160 million	75%	Positive trajectory: moderate additional measures needed
Medium + heavy commercial vehicles	30%	80 million	29%	Not on track: strong additional measures needed urgently

Source: BNEF, government sources. Note: Fleet size is vehicles of all drivetrain types and is an estimate based on various sources and BNEF data. Some values rounded. Emissions and fleet size data are for 2021.

3.24 BNEF notes that 'minor additional measures are needed' in the L-Category sector. This can take several forms in terms of investment, charging infrastructure deployments and so on, but the projections indicate that for the L-Category sector, the end result can be achieved through 'carrots' and not the major measures or 'sticks' of inflexible and non-globally agreed arbitrary targets.

## **Heritage Protection**

- 3.25 Although the NMC welcomes the Government's decision to not ban the use of ICE engined motorcycles and intends for the used motorcycle market to continue, there needs to be full protections for heritage motorcycling into the future.
- 3.26 The classic motorcycle sector is a notable contributor to the UK economy. It was estimated in 2019 that there were 674,592 classic motorcycles with an estimated value of nearly £1.2 billion (HERO-ERA).
- 3.27 This is an important part of the UK's £18 billion historic vehicle sector. A Centre for Economics and Business Research report for the Federation of British Historic Vehicle Clubs (FBHVC) estimates that of the approximate 3 million classic vehicles, nearly 675,000 are motorcycles, 29% of the sector. Annual sales, maintenance and repair of classic motorcycles, plus related parts and equipment, amounts to nearly £145 million per annum, with additional expenditure on insurance.
- 3.28 As mentioned above, given that many older motorcycles have good fuel economy, classic motorcycles often have very low Co2 outputs. Keeping an existing motorcycle on the road throughout its full life cycle is preferable to manufacturing a replacement, for example a battery electric alternative, as the production of these vehicles causes high Co2 emissions (ZEMO LCA).
- 3.29 There is also an important UK cultural element. Classic motorcycle events are hugely popular among both riders and the wider general public. The sector involves not just the conservation of irreplaceable vehicles but in so doing it helps to preserve skills, supporting



important sub-economies. They are thus an important part of UK culture, which is set to become more prominent as the new vehicle fleet decarbonises.

- 3.30 Therefore, a recognition the enduring presence of historic vehicles is essential. The key point is that historic vehicles are cherished 'Mobile Heritage' and suitable fuels need to be available therefore for such vehicles so they can continue to be used on tomorrow's roads.
- 3.31 The NMC feels that it is a common misconception that the ICE motorcycle population will decline as part of the overall vehicle parc as the new motorcycle fleet reaches zero emission. Unlike vehicles used purely as transport, the ICE historic vehicles are preserved heritage assets, suitable fuels for which will need to continue to be available. It is also a misconception that all historic vehicles are due, sooner or later, for consignment to museums and private collections.
- 3.32 The NMC and its members would therefore support the creation of a stream of work by DfT in partnership with key stakeholders and as part of industry/government 'road map' activity to examine low carbon fuel options for what is set to be a growing legacy and historic vehicle fleet, including vintage and classic motorcycles. Issues such as safety, performance and compatibility of new low carbon fuels are key considerations in this context.

It is notable that the European motorcycle manufacturers association ACEM, has joined the eFuel Alliance: <a href="https://www.acem.eu/newsroom/news/acem-joins-the-efuel-alliance-joint-online-event-to-be-hosted-on-28-september">https://www.acem.eu/newsroom/news/acem-joins-the-efuel-alliance-joint-online-event-to-be-hosted-on-28-september</a>, indicating a direction of technological travel at global manufacturer which is 'out of kilter' with the mono technological approach of the consultation.

Further comments on clean fuels are made in the section on consultation questions below.

## **Rider Licensing**

- 3.33 The current criteria for Minimum Test Vehicles (MTV) required for the motorcycle test, as they apply to electric motorcycles is unsatisfactory. The inclusion of the 'continuous power rating' criteria, in particular for the A category MTV, makes it impossible to take the test for a full A licence on an electric motorcycle because there are no machines on the market which fit the defined criteria for a minimum test motorcycle.
- 3.34 The NMC understands that fulfilling the current criteria is likely to produce a machine with undesirably fast acceleration. Given that more is now known about the performance of electric motorcycles, the criteria for electric motorcycle test machines needs to be redefined.
- 3.35 A further issue is the lack of availability of geared electric motorcycles. This could lead to a situation where future riders become restricted to automatic types.



3.36 It is clear that attention will also need to focus on how the testing and training regime needs to evolve.

3.37 The NMC has published a paper on the future of training and testing 'Position Paper on the Training and Testing of Motorcyclists', now that the UK has the opportunity to diverge from the EU Third Driving Licence Directive.

# 4. The 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.

The NMC disagrees, for reasons set out in this response

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.

The NMC Disagrees for the reasons set out in this response.

Additionally, with regard to L1 (mopeds) – the current progress of the market towards zero emission suggests that a target will not be needed even if this was desirable.

For L3e-A1, the current progress of the 125cc equivalent battery electric market is both slow and with products which have yet to meet the widest possible uses that current 125cc bikes are capable of, particularly in actual (not manufacturer claimed) ranges. It is accepted that the situation is likely to improve, but there are also issues with quality and reliability which comes from mass market manufacture and adoption which still need to be fully evaluated, with this not possible until a much larger market appears.

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

See above.

# **Derogations and Exemptions.**

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 and exemptions

Any new regulatory framework should include exemptions or modified targets. Production volumes of wholly UK based manufactured ICE motorcycles will fall within



scope of the current EU derogation and exemption framework, which the NMC feels should be retained within UK law.

Among manufacturers registering motorcycles onto the UK market in 2019 (pre pandemic), the largest volume individual manufacturer registering motorcycles in the UK came well within scope of the 'small volume and niche volume' EU derogation.

Given that the industry is already behind the car industry in transition to zero emission, it seems reasonable to consider a similar derogation and exemption scheme within UK regulation. The key reason for this is to avoid 'market shocks' for consumers (riders) via the setting of arbitrary targets which even if capable of being met on paper, will not likely result in products that motorcyclists will want to ride in sufficient volumes to avoid damage to the UK motorcycle market.

#### **Fuels**

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

The role of alternative fuels could be potentially significant.

Although the Government claims to be technology neutral in section 2.18, section 2.19 reveals that it only supports a transition to fully electric vehicles. This is not technology neutrality.

As noted above, while smaller battery electric PTWs may become predominant in terms of urban mobility in the future, PTWs with already lower polluting internal combustion engines (ICE) will continue have an important role to play.

Although there are many challenges around the development of low carbon and carbon free fuels, automotive manufacturers (and the aviation industry) are making significant investments in developing synthetic fuels which have the potential to allow ICE technology to continue while being part of the move towards decarbonisation. Other technologies such as hydrogen powered vehicles are also part of the development of new technologies.

The potential for e-fuels is illustrated in the motorcycle sports sector. Working with MotoGP™ manufacturers, the sport has set new goals for increased sustainability. There are two targets:

- By 2024, fuel in all MotoGP™ classes will be of minimum 40% non-fossil origin
- By 2027, fuel in all MotoGP™ classes will be of 100% non-fossil origin

The FIM say that "MotoGP™ is the platform in which these fuels will continue to be developed and tested, with every premier class manufacturer working with their supplier to develop their own fuel. The development of multiple fuels will ensure that the technology and knowledge will reach consumer motorcycles and fuel pumps on



the street. This will create an unrivalled selection of viable, sustainable drop-in fuels developed by some of the most important players in global energy and tested by the highest level of prototype two-wheeled machinery in the world. With no single proprietor, the initiative guarantees unprecedented global impact." <a href="https://www.fim-moto.com/en/news/news-detail/article/motogptm-racing-towards-the-fuel-of-the-future">https://www.fim-moto.com/en/news/news-detail/article/motogptm-racing-towards-the-fuel-of-the-future</a>

These developments follow a long established pathway whereby technological development in the motorcycle sport sector leads directly to product enhancements and evolution of design for road motorcycles.

Further information about e-fuel potential has been published by the European motorcycle industry here:

https://www.acem.eu/images/publiq/2022/ACEM position paper - Efuels.pdf

## **ZEV Mandate**

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?

Effectively, a ZEV mandate would likely become a 'phase out by stealth' meaning that any actual phase out dates become irrelevant, as manufacturers will need to have a certain percentage of their volumes zero emission before then.

The NMC does not support such an approach, particularly as illustrated by BNEF, the two wheeled sector in particular needs only minor support measures to be fully on course to achieve net zero goals by 2050.

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

With regard to the uptake of last mile deliveries, this is an area where procurement policy can play a role, ie local authorities encouraged to put more emphasis on electric L-Category vehicles as part of local and regional procurement policy. Additionally, While the prices of electric L1/2/3 category vehicles are reducing they are still more expensive than ICE powered machines. A further review of current Government subsidies, to make these more attractive could encourage greater uptake by delivery companies and would benefit the motorcycle trade.

Such support should extend to purchasers of electric motorcycles generally. As mentioned above the Plug in Grant subsidy should be further reviewed and other incentives in terms of taxation policy, investment, charging infrastructure deployments etc fully considered in terms of the positive levers that can be put in place.

National Motorcyclists Council September 2022.



## 5. List of Reference Links

The full links referred to in this document are listed below.

- PLV Action Plan: https://www.mcia.co.uk/plv-action-plan
- Economic Importance of Motorcycles to Europe:
   https://acem.eu/images/publiq/2021/Oxford Economics 
   The economic importance of motorcycle to Europe.pdf
- PLV Life Cycle Analysis Study: https://www.mcia.co.uk/downloads/download/644
- Route to Tomorrow's Journeys: <a href="https://www.mcia.co.uk/downloads/download/189">https://www.mcia.co.uk/downloads/download/189</a>
- Motorcycling and the Future of Transport Policy: <a href="https://assets.website-files.com/60364ce44148d168e4193d50/62160210b1212f9bce90ddd7">https://assets.website-files.com/60364ce44148d168e4193d50/62160210b1212f9bce90ddd7</a> NMC-Motorcycling%20and%20the%20Future%20of%20Transport%20Policy%202022.pdf
- Economic Benefits of the UK Motorcycle Industry:
   https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjA58q9wpn6AhW0IFwKHVl9DW4QFnoECEMQAQ&url=https%3A%2F%2Fwww.trf.org.uk%2Fmembers-area%2Ftrail-magazines%2Fdoc\_download%2F3111-economic-benefits-of-the-uk-motor-cycle-industry-2014.html&usg=AOvVaw3Bext1M1U8o001-6GlcDfM
- MAG Survey: https://www.mag-uk.org/mag-publishes-petrol-motorcycle-survey-results/
- FEMA Survey: https://www.femamotorcycling.eu/motorcyclists-say-no-to-ban/
- Bikesure Survey: <a href="https://www.bikesure.co.uk/bikesureblog/2021/03/electric-opinions-survey.html">https://www.bikesure.co.uk/bikesureblog/2021/03/electric-opinions-survey.html</a>
- Bloomberg NEF Projections: <a href="https://about.bnef.com/blog/net-zero-road-transport-by-2050-still-possible-as-electric-vehicles-set-to-quintuple-by-2025/?utm\_source=POLITICO.EU&utm\_campaign=a0285a1f70-EMAIL\_CAMPAIGN\_2022\_06\_02\_04\_59&utm\_medium=email&utm\_term=0\_10959edeb5-a0285a1f70-190705624</a>
- ACEM eFuel Alliance: <a href="https://www.acem.eu/newsroom/news/acem-joins-the-efuel-alliance-joint-online-event-to-be-hosted-on-28-september">https://www.acem.eu/newsroom/news/acem-joins-the-efuel-alliance-joint-online-event-to-be-hosted-on-28-september</a>
- NMC Position on rider testing and training: <a href="https://assets.website-files.com/60364ce44148d168e4193d50/628d0a5c410b984e18db1296">https://assets.website-files.com/60364ce44148d168e4193d50/628d0a5c410b984e18db1296</a> NMC%20Rider%20Li censing%20Position%20updated%2024052022.pdf
- FIM and eFuels: <a href="https://www.fim-moto.com/en/news/news-detail/article/motogptm-racing-towards-the-fuel-of-the-future">https://www.fim-moto.com/en/news/news-detail/article/motogptm-racing-towards-the-fuel-of-the-future</a>
- ACEM and eFuels: <a href="https://www.acem.eu/images/publiq/2022/ACEM">https://www.acem.eu/images/publiq/2022/ACEM</a> position paper Efuels.pdf



# **About the National Motorcyclists Council**

The National Motorcyclists Council (NMC) is a coalition of motorcycling representative organisations, which works together on commonly held positions about issues where motorcyclists seek to change or influence government policy. It also researches issues to both inform campaigning and support the individual work of its members.

#### The NMC's mission:

'Working together to help assure a positive and sustainable future for motorcycling'

The NMC brings together a broad spectrum of representative national motorcyclists organisations. These range from riders campaign groups, to motorcycle sport representatives, off road and green roads interests, the motorcycle trade and road safety experts.

National Motorcyclists Council members are: The Auto Cycle Union, BikeTrac, the British Motorcyclists Federation, IAM RoadSmart, Mental Health Motorbike, the National Motorcycle Dealers Association, Plantec Assist, the Trail Riders Fellowship and the Vintage Motor Cycle Club.

The NMC also has an international partnership with the Federation of European Motorcyclists Associations (FEMA) and the global motorcycle sport governing body the Fédération Internationale de Motocyclisme (FIM).

Further details about the NMC, it's membership and policies, can be found at www.uknmc.org













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