

NMC Position on the Decarbonisation of Motorcycles



Introduction

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 insurance service sector. The collective membership of these organisations and their numerous affiliates approaches 100,000 individual motorcyclists. The NMC's mission is to work together to help assure a positive and sustainable future for motorcycling.

Summary of Position

- 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 Government is therefore called upon to take a 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. It also risks market and economic shocks if done to arbitrary timetables in advance of globally agreed targets for net zero.
- Motorcycle manufacture is a global, not local, matter. As a result, the UK must move to a globally agreed timetable and not introduce arbitrary timetables in advance of these, which will make little difference to the global CO² picture in any case. It is vital that 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 and as a result of the war in Ukraine.
- Therefore, there should be no arbitrary date for ending the production of new ICE motorcycles which does not align with manufacturing evolution to internationally agreed net zero targets which are deliverable against the wider global socio-political environment.
- There needs to be recognition of already much greener motorcycle credentials – motorcycles can and are playing a part in the move towards net zero right now.
- There must be no ban on the use of ICE motorcycles already manufactured. 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. The environmental costs of any 'mass scrappage' would likely far outweigh allowing 'legacy' machines to complete their life cycles.

- 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.
- The NMC has committed to close dialogue and to work with the industry, government and with our international partners, as decarbonisation policy develops.

Environmental context for motorcycling

The NMC contends that motorcycles have long been vehicles which have a lower average carbon footprint than other internal combustion engine (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).

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. (note: L-Category is defined as motorcycles, tricycles and ultra-light four-wheeled vehicles)

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](#))"

In general terms, PTWs as a whole contribute very little to overall emissions from vehicles, as was noted by DEFRA in the 2017 [draft air quality control plan](#). 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.

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.

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.

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. 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 motorcycle 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.

Heritage Protection.

There needs to be full protections for heritage motorcycling. 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).

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.

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).

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.

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.

We feel 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.

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.

Charge Points.

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.

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.

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:

- 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)

The Road Ahead

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.

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. 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.

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 than are being faced by the car industry, 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.

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. 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.

A target of 2035 has been mooted as the phase out date for all ICE powered motorcycles. Although recognising the ambition behind this target, the NMC contends that it is not yet known whether manufacturing can meet this target with a range of motorcycle types which will have broad market appeal among riders, given the wide diversity of rider requirements and activities across the sector.

Motorcycling is an important commuter and leisure choice. It also provides a notable economic profile directly and indirectly (£7.2billion to the UK economy in 2015 ([MCIA/ICF](#))). Therefore, given motorcycling's interface with wider society, via commuting, leisure and sporting activities, plus the contribution made to the vitality of communities by motorcycling activity, it is essential that government regulation and targets do not create the 'market shocks' mentioned above which would impact beyond motorcycling itself. Therefore, it is absolutely essential that close dialogue continues between motorcycle user groups, industry and the relevant sections of government working within this area.

There needs to be policy options which includes regulation that recognises the inherently eco-friendly benefits of motorcycling. For example, an arbitrary ban on ICE motorcycles before the market has evolved to accept and adopt it, could lead to immediate rises in urban traffic congestion if riders were to give up riding.

Policy development should also leave room for the consideration of other types of alternative fuels as research and development evolves in this area.

Finally, the NMC will not support retrospective regulation in this area and would not support a ban on the use on the highways of existing ICE motorcycles after production of new ICE motorcycles ceases. As mentioned above, vehicle lifecycles must be allowed to run their natural course, as the 'forced' scrappage of perhaps many millions of vehicles after a usage cut-off date would be vastly more damaging to the environment.

May 2022.

Links

The Economic Importance of Motorcycles to Europe:

[https://acem.eu/images/publiq/2021/Oxford Economics -
The economic importance of motorcycle to Europe.pdf](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: <https://www.mcia.co.uk/downloads/download/189>

Draft Air Quality Control Plan:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/
file/633270/air-quality-plan-detail.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633270/air-quality-plan-detail.pdf)

MAG Rider Survey: <https://www.mag-uk.org/mag-publishes-petrol-motorcycle-survey-results/>

FEMA Rider Survey: <https://www.femamotorcycling.eu/motorcyclists-say-no-to-ban/>

MCIA/ICF Economic Study: [https://the-zebra.com/wp-content/uploads/2015/04/Economic-
Benefits-of-the-UK-Motor-Cycle-Industry-2014-Final-Report-2.pdf](https://the-zebra.com/wp-content/uploads/2015/04/Economic-Benefits-of-the-UK-Motor-Cycle-Industry-2014-Final-Report-2.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 rider's campaign groups to motorcycle sport representatives, off road and green roads interests, the motorcycle trade, road safety experts and motorcycling's heritage.

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



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