



POSITION PAPER

POST 2020 LIGHT VEHICLE CO₂ REGULATIONS INITIATIVE

INTRODUCTION

The ART Fuels Forum¹ – Passenger Cars group underlines the importance of introducing a more comprehensive approach for assessing the environmental benefits of sustainable mobility solutions, matching this with bio/renewable alternative fuels. We take the view that the Post 2020 light vehicle CO₂ Regulations initiative² is a missed opportunity to achieve a considerable reduction in the carbon footprint of the entire fleet through the recognition of the uptake of sustainable renewable fuels. Such recognition is essential to ensure long term industrial investment to promote widespread deployment of advanced renewable fuels.

¹ The Alternative Renewable Transport Fuels Forum is an initiative financed by DG ENER promoting the deployment of sustainable alternative fuels in the transport sector. For more information please see: <http://www.artfuelsforum.eu/>

² https://ec.europa.eu/info/law/better-regulation/initiatives/com-2017-676_en

ANALYSIS

The EU CO₂ emission reduction target from road transport by 30% by 2030 is very ambitious; meeting that target for new vehicles will be helped by the faster introduction of a range of low carbon fuel options that will also improve CO₂ emissions from the legacy fleet. This means a wider adoption of renewable energy sources, including bio/renewable alternative fuels, in the road transportation sector in a cost-effective way.

The transition towards a “modern and low carbon economy” improving air quality is one of the main challenges to counterbalance the expected increase in passenger and freight transport, and to reduce Greenhouse Gas (“GHG”) emissions while increasing the air quality in urban areas. A shift from the current oil-based system to a multi-fuel/energy one, where different technologies such as internal combustion engines (“ICEs”) and electrified powertrains coexist, is necessary.

As regards decarbonisation and the EC proposal on CO₂ regulation for Passenger Cars (COM(2017)676) and Light Duty Vehicles for post 2020/21, setting an ambitious target was a fundamental drive for determining the future of this regulation. Considering the technology evolution and the wider fuel mix available, which results in a more complex system, it is also the right timing to consider adapting the metrics used so far to assess vehicle CO₂ performance. Performance assessment solely based on tailpipe emissions no longer represents the total CO₂ impact from the in-use vehicle. A unique focus on tailpipe emissions also results in an unacceptable bias versus Electrical Vehicles which are commonly seen as “zero emission” solutions, but in reality depending on the source of the electricity used.

In parallel to the development of electrical mobility, other cost-effective sustainable solutions can be exploited today with overall CO₂ performance that are equivalent or sometimes even better than battery electric vehicles. Low-carbon alternative and sustainable fuels for on-road vehicles are already available in the EU, covering a substantial portion of the EU fleet and providing environmental benefits. Nevertheless, these benefits are unfortunately completely ignored in the proposed approach post 2020 (COM(2017)676).

The ART Fuels Forum – Passenger Cars group **supports** the objective of progressively reducing GHG emissions from transport through the adoption of a holistic approach which include fuels, vehicles, control and management of traffic, improved infrastructures and drivers’ training and education.

Over the long term, transport policy for fuels and vehicles should be:

- cost-effective and cross-sectorial, as this approach is more effective than sectorial ones, and thus deliver higher value for the planet at the lowest cost for citizens
- technology neutral
- predictable – to ensure safeguarding of the internal market
- fair – taking into account overall GHG emissions when making policy proposals on bio/renewable fuels.

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The regulatory transition to the cross sectorial approach in the short-mid-term should be based on:

- a continuation of the growing trend for vehicle efficiency, with realistic and achievable targets by different technologies
- the recognition of the fact that blending sustainable biofuels/renewable fuels results in a substantial reduction of CO₂ emissions.

Regarding electro mobility:

- advantages of electric vehicles (“EVs”) rely on their high efficiency, simplicity, low maintenance, zero tailpipe emissions
- however, from a GHG perspective, EVs are not always more sustainable than ICE vehicles, as it is shown in Figure 1 below. In this case the improvement of the CO₂ emissions must strictly be of competence of the electric energy producers.

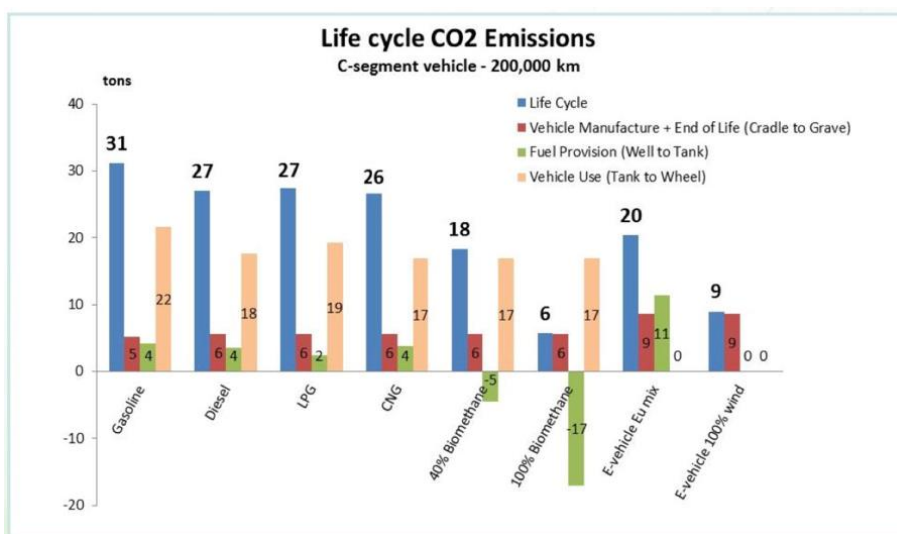


Figure 1: A comparison of Life cycle CO₂ emission for variously-fueled C-segment vehicles. Source: WG elaboration of internal and JRC data³

- subsidies (in the various possible forms) to electric cars can be very expensive for public community, especially when mass-scale electrification is considered
- large-scale deployment of electrical mobility would also mean huge costs for the distribution networks and infrastructures – not always factored in the studies

The combination of liquid/gaseous carbon neutral fuels produced by sustainable clean sources (biofuels, recycled carbon fuels, synthetic fuels, Power-to-X fuels) in the most efficient ICE and Hybrid Vehicles could offer an effective means to lower GHG emissions by passenger cars, while leveraging further improvements in other sectors (most notably in

³ JRC Technical Report: WELL-TO-WHEELS Report Version 4.a. JEC WELL-TO-WHEELS ANALYSIS, 2014.

ANALYSIS

the Heavy Duty Vehicles sector, but also in the Maritime and Aviation sectors) and taking advantage of existing infrastructures.

CONCLUSIONS

The ART Fuels Forum – Passenger Cars group **calls** for:

- a technology neutral overall approach towards **ambitious but achievable** targets

In this respect, actions should be taken as follows:

- in the short term, CO₂-vehicle efficiency Standards should
 - be based on ambitious but realistic Tank-to-Wheel targets
 - acknowledge the contribution of fuel improvements (e.g. use of sustainable biofuels) in a concrete manner
 - be considered in within a coherent approach to the current legislation on renewable fuels for transport (e.g. in RED)
 - inform consumers immediately and transparently about the Life Cycle CO₂ performance of different drive train technologies
- in the medium term, focus should be paid to assess CO₂-vehicle efficiency standards for bio/renewable fuels and revise regulation accordingly, so to take into account the actual GHG savings
- in the long term, realization of a regulatory transition leading to convergence of the cost of emission reduction in the Road Transport and other sectors: full recognition of all fuel CO₂ reduction contributions into the CO₂ vehicle efficiency Standards.

ART Fuels Forum – Passenger Cars group **takes the view that**:

- the largest opportunity for GHG emission reduction actually stays in the existing fleet (EU-28 250+ million vehicles vs 14 million added/withdrawn every year), and renewable fuels can play a decisive role. If 5% carbon reduction in the entire fleet can be achieved, that would equal 60% reduction in new vehicles only.

ABOUT ART FUELS FORUM

The ART Fuels Forum brings together 100 experts and leaders representing the value chain for alternative transportation fuels to facilitate discussions, elaborate common positions on policy issues and identify market penetration opportunities and barriers for these fuels. The Forum is established and financed by the European Commission under the project name “Support for alternative and renewable liquid and gaseous fuels forum (policy and market issues)”. It is composed of stakeholders from the European alternative and renewable transport fuels (ART Fuels) production industry, the transportation sector, the main international cooperation actors and EU policy makers and stakeholders.

ART Fuels Forum focuses on sustainable advanced liquid and gaseous transportation fuels derived from a broad range of non-food feedstocks using specialized conversion technologies. These transportation fuels include, among others, fuels produced from thermochemical and biochemical conversion of lignocellulosic biomass, fuels from algae and microbial biomasses, power to gas/liquid fuels, solar fuels, fuels from industrial waste gases, fuels from municipal solid waste, plastic waste and refinery waste, and co-processing of biomass intermediates in existing refineries.

www.artfuelsforum.eu

DISCLAIMER - The above Position paper on the Post 2020 light vehicle CO₂ Regulations initiative has been drafted by the Passenger Cars Working Group of the Alternative & Renewable Transport Fuels Forum (ART Fuels Forum) after exchange of opinions and internal consultation among the Forum members. The content of the Position paper does not necessarily reflect the views of all members of the ART Fuels Forum, but is a synthesis of the main positions. The positions and recommendations listed above are those of the members of the ART Fuels Forum and do not necessarily reflect either the official position of the Commission or the complete position of the members of the ART Fuels Forum.

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