

ACEA Position Paper

Renewable Energy Use Directive and Fuel Quality Directive



EUROPEAN COMMISSION PROPOSAL TO REVISE THE RED AND FQD

The European Automobile Manufacturers' Association (ACEA) has taken note of the proposal by the European Commission to revise, in this case, the Renewable Energy Use Directive (RED) – (EU) 2018/2001 – and the Fuel Quality Directive (FQD) – 98/70/EC. Although the Commission proposal also addresses Regulation (EU) 2018/1999 on obliging member states to submit national climate and energy plans, the proposals on RED and FQD are the focus of this paper.

SUMMARY

The transition towards climate-neutral road transport will require many consistent EU-wide policy measures, especially for road transport.

ACEA supports the intention of the Commission to amend the RED to update the renewable energy use targets for 2030 that were agreed in 2018 in respect of the higher ambition level of the 2030 Climate Target Plan endorsed by the co-legislators in 2020.

However, we have some **major concerns** regarding key issues within the RED proposal and the FQD proposal.

RED ROADMAP

The **roadmap laid down in the RED must extend well beyond 2030** by setting targets for increased availability of renewable fuels and energy that will **set the pathway to 100% fossil-free fuels and energy for road transport**, thereby helping Europe to achieve climate neutrality by 2050 and giving the right long-term signals to investors and industry.

The RED proposal must address the massive potential of the existing and changing road transport fleet to use low-carbon sustainable liquid and gas fuels which can be distributed through the existing infrastructure. The potential for the current vehicle fleet to help reduce total road transport CO₂ emissions cannot be ignored.

There are studies² that indicate the potential for a 30% share of advanced renewable biofuels by 2030, not including renewable fuels of non-biological origin (RFNBO). Taking also into account all elements of the 'Fit for 55' climate package, the share of

renewable electricity in total renewable energy for road transport will certainly need to increase by 2030.

Therefore, we judge the Commission proposal to reduce the greenhouse gas (GHG) intensity of all renewable energy (fuels and electricity) by only **13% by 2030 as not ambitious enough**.

ACEA requests that the **2030 RED target for road transport outlined in Article 25 is made far more ambitious and looks well beyond 2030** along the pathway to climate neutrality as addressed by other proposals in the Fit for 55 package, as follows:

Year	Reduction in GHG intensity of all fuels and energy delivered to <u>road transport</u> *
2030	at least 40%
2035	at least 55%
2040	at least 80%
2045	100%

* Calculated according to the methodology in the RED proposal

Other elements of the Fit for 55 package that will lead to higher costs for customers and operators (eg ETD, ETS-2) may be acceptable to encourage a move away from fossil fuels, but it will not be acceptable if customers and operators across all mobility needs and affordability levels only see rising costs for transport and mobility without having widespread access to appropriately priced low-carbon alternatives.

ELECTRICITY AND SYSTEM INTEGRATION

ACEA supports the proposed credit system for charge point operators for renewable electricity used for the charging of electric vehicles and the preferential weighting of renewable electricity by fossil fuel comparator ECF(e).

ACEA is sympathetic to the concept of bi-directional charging, but if it goes ahead, bi-directional charging must be targeted to charging events with a long connection time. The application of bi-directional charging to heavy-duty vehicles would be completely impractical. Those vehicles are used to perform work and to move goods. Their daily utility will depend on overnight charge cycles that provide full range capability from the first start of activity in the morning.

However, we want to **stress the following points in respect of Article 20a of the RED proposal**, which addresses the issue of system integration with renewable

electricity – aiming to give third parties (free) access to on-vehicle Battery Management System (BMS) information to take energy from vehicle batteries back into the grid.

- **ACEA cannot accept this proposal** as written since BMS data typically comprises **vehicle manufacturer proprietary information and intellectual property**, which **cannot be disclosed without limitations**.
- Providing **access to raw BMS data is not a reliable way to determine the state of health of a vehicle battery**, considering that the algorithms used will differ depending on the type of battery therefore making direct comparisons impossible.
- Therefore, any **request for data access must be aligned with principles guiding other regulatory initiatives on vehicle data (safety, security and extended vehicle concept)** and recognising the right of vehicle manufacturers to have a **fair return on their investment**.
- It will also be important that **consumers are properly informed of the impact** of charging-discharging cycles on electric vehicle battery durability and vehicle manufacturer offered warranties. Customers must have the right to opt-out.
- Discussions are already taking place on what vehicle information is relevant to third parties (eg in the Battery Regulation which is currently being discussed in the institutions) and **ACEA calls for a fully synchronised approach, not a patchwork of regulations**, when it comes to the disclosure of battery related information.
- Vehicle manufacturers are committed to sharing vehicle-generated data with third-party services in a manner that ensures the protection of the vehicle user's personal data, does not endanger the safe and secure functioning of the vehicle, and does not undermine the liability or intellectual property rights of the vehicle manufacturer.

FUEL QUALITY DIRECTIVE (FQD)

The proposal to increase the maximum content of Fatty Acid Methyl Esters (FAME) in biodiesel from 7% (B7) to 10% (B10) is meaningless when one considers other parts of the Fit for 55 package (ie the 7% cap and the Energy Taxation Directive) that clearly signal that first-generation biofuels are on the way out.

Vehicle compatibility with using B10 diesel is a concern⁴. Instead of B10 we recommend a greater focus on fully compatible drop-in sustainable fuels that deliver GHG reductions and which the whole fleet, old and new, can use.

There are many points where the FQD should now be amended to address the first two words of the Fuel Quality Directive (ie '**Fuel Quality**'); improvements are needed both for environmental reasons but also for vehicle operational reasons – where the European Committee for Standardisation (CEN) is sometimes less effective than it should be. In this respect, making the FQD a Regulation is necessary to move away from it being just a permissive description for standardised fuel quality with a higher renewable share.

This paper and a separate ACEA position paper on the FQD (to be published later) will outline where ACEA requests amendments to the FQD now.

SPECIFIC ELEMENTS OF THE PROPOSAL

RED TARGETS FOR TRANSPORT MUST BE MORE AMBITIOUS AND LONGER-TERM

- The transition to climate neutral road transport has started though the introduction of new zero-emission vehicles (ZEVs) into the EU fleet and this transition demands a suitable supporting infrastructure driven through the Alternative Fuels Infrastructure Regulation (AFIR)¹.
- However, the current road transport fleet and new low-emission vehicles, that will be part of manufacturer portfolios to help meet future CO₂ fleet targets, will continue to be composed of vehicles with old, current and future internal combustion engine (ICE) technologies for many years. But that fleet can also contribute to road transport CO₂ reduction by having faster and greater access to non-fossil low-carbon sustainable liquid and gas fuels.
- De-fossilisation pathways via renewable electricity and renewable non-fossil low-carbon sustainable fuels in ICE are both covered in the updated road transport targets for 2030 proposed in this proposal for the RED, but the RED targets also have a key role in determining the level of ambition in AFIR.

¹ ACEA position paper – Proposal for the Alternative Fuels Infrastructure Regulation (AFIR), see: <https://www.acea.auto/publication/position-paper-proposal-alternative-fuels-infrastructure-regulation-afir/>

- More ambitious RED targets for 2030 will drive a greater level of ambition of, for example, renewable energy generation capacity, delivery system capability and security and the delivery of a much greater amount of drop-in non-fossil low-carbon sustainable liquid and gas fuels.
- The proposal for RED must address the massive potential of the existing and changing road transport fleet to use low-carbon sustainable liquid and gas fuels which can be distributed through the existing infrastructure. The potential for the current vehicle fleet to help reduce total fleet CO₂ emissions cannot be ignored. This step alone could have a great impact in the short to medium term compared to the time it will take to renew the fleet with electrically-chargeable vehicles and all the question marks that remain on the required supportive infrastructure.
- In this respect the proposed target of at least a 13% reduction in the GHG intensity of renewable energy (fuels and electricity) for transport by 2030 (Article 25) is simply not ambitious enough. This statement is reinforced if EU member states would use the possibility in RED to deduct up to 3.5% from the target by not using and including biofuels from food / feed feedstock. In that case, a member states target for GHG reduction intensity can be as low as 9.5%.
- It is also a **major concern the RED proposal does not even contain any targets after 2030**. This is not the signal that investors in major industrial change want to see, because without longer-term binding targets the investment and production boost that is necessary to set the pathway to 100% fossil-free fuels and energy for road transport will not be made and risks this part of the Fit for 55 package failing in its role to deliver climate neutrality.
- A recent study by Imperial College London² indicates the potential for a 30% share of advanced renewable biofuels by 2030, not including renewable fuels of non-biological origin (RFNBO). It must be ensured that this potential is delivered by the fuels industry via clear and long-term targets.
- Taking also into account all elements of the Fit for 55 climate package, the share of renewable electricity in total renewable energy for road transport will certainly need to increase by 2030.
- However, member states may have social, economic and other reasons to set different pathways for the decarbonisation of road transport in their territory but still aim to decarbonise the road transport sector through EU

² Sustainable biomass availability in the EU, to 2050. Imperial College London, August 2021.

regulations that will lead to technical change and the availability of renewable fuels and energy.

- Therefore, and in conjunction with other elements of the Fit for 55 package, ACEA requests that the RED target for road transport outlined in Article 25 be made far more ambitious and look well beyond 2030, as follows:

Year	Reduction in GHG intensity of all fuels and energy delivered to <u>road transport</u> *
2030	at least 40%
2035	at least 55%
2040	at least 80%
2045	100%

* Calculated according to the methodology in the RED proposal

- The aviation sector has its own targets from 2020-2050 for access to sustainable aviation fuel (and a sub-target for synthetic aviation fuel) in the ReFuelEU Aviation initiative, the marine sector also has its own targets. There is no reason why the road transport industry should not have its own targets and roadmap to fossil-free fuels and energy for road transport, as laid out in the table above.
- We believe the roadmap outlined above sets a more reasonable level of ambition for 2030, setting a clear pathway for what we expect from the fuel sector in parallel to what the regulators are looking at for the road transport sector. Higher RED targets must also strongly influence the infrastructure targets being set in the AFIR.
- The target numbers in the table above do not require any sub-targets to be set but it can be justified to also raise the sub-target for RFNBO to a level higher than the proposed 2.6% by 2030 to give a clear investment signal that such fuels must be part of the future energy mix for both road transport and other transport sectors. The road transport sector can only meet its targets if the fuel-energy suppliers and vehicle manufacturers contribute with similar levels of ambition.
- These target numbers will require substantial investment (just like vehicle manufacturers are being asked to do to achieve net-zero road transport by 2050) but what is needed now is clarity and to get the spades in the ground right away, providing the necessary levels of fossil-free fuel and energy to help all road transport, not just new vehicles, make the transition.

- The target values in the table above must be considered as milestones to climate neutrality in 2050, without any room for flexibility or exclusions. The burden and the targets for vehicle manufacturers are already defined by the Fit for 55 proposal on 2030 CO2 fleet targets (and a proposal for 2030 targets for heavy-duty vehicles to come in 2022). The clear electrification strategies of vehicle manufacturers today indicate the success of those regulations.
- We are convinced this is the only viable pathway to achieve a 100% reduction in transport GHG emissions by 2050.

ELECTRICITY, SYSTEM INTEGRATION AND ROAD VEHICLES WITH BATTERIES

- ACEA supports the proposed credit system for charge point operators for renewable electricity used for the charging of electric vehicles and the preferential weighting of renewable electricity by fossil fuel comparator ECF(e).
- ACEA is sympathetic to the concept of bi-directional charging, but if it goes ahead, bi-directional charging must be targeted to charging events with a long connection time.
- The application of bi-directional charging to heavy-duty vehicles would be completely impractical. Those vehicles are used to perform work and to move goods. Their daily utility will depend on overnight charge cycles that provide full range capability from the first start of activity in the morning.
- However, we **must stress the following points in respect of Article 20a of the RED proposal**, which addresses the issue of system integration with renewable electricity – aiming to give third parties (free) access to on-vehicle Battery Management System (BMS) information to take energy from vehicle batteries back into the grid.
 - ACEA is concerned with the fact that, on top of the existing requirements for battery information (eg present in the Battery Regulation / part of the upcoming UN-ECE GTR, or part of the battery durability requirements that will be encompassed within Euro 7 / VII) or in-vehicle data access, RED also aims to regulate access to in-vehicle battery information.
 - Such a patchwork regulatory framework is unworkable for vehicle manufacturers and ACEA would welcome a consistent regulatory

framework where proportional access to battery information would not come from multiple regulations.

- Discussions on what information is relevant to third parties are already taking place (eg in the Battery Regulation which is currently being discussed in the institutions) and ACEA calls for a fully synchronised approach rather than a patchwork regulation when it comes to the disclosure of battery related information.
- The RED impact assessment seeks to justify third-party access to battery information in the name of fair competition on the aggregation and electromobility service markets. In that respect, it pursues the same objective as the wider regulatory initiative on access to vehicle data currently prepared by the European Commission's DG GROW.
- If ultimately deemed necessary, it should at least be aligned with principles guiding the other regulatory initiatives around the sharing of vehicle data. It is currently not the case: by suggesting mandatory provision of data free of charge, the RED proposal goes against the principle followed by other legislative initiatives that recognise the right of vehicle manufacturers to have a fair return on investment. Since no market failure has been established, providing data free of charge is not justified.
- EU regulators must therefore balance the interests of data holders and access seekers. Vehicle manufacturers support sharing vehicle data on fair, reasonable, and non-discriminatory (FRAND) terms. The ability to charge a third party for access to data is necessary to ensure a fair return on investment for data providers: generating, collecting and managing data all come at a cost that vehicle manufacturers should, at least, be in a position to recover.
- Customers need to be properly informed of the pros and cons of bi-directional charging. For example, that increased charging-discharging cycles will negatively impact electric vehicle battery health.
- Therefore, customers must be fairly compensated for the energy that their property would put back into the grid, whatever time day or night, and have a choice to opt-out.
- Since other actors will be influencing the number of charging and discharging cycles of the battery, vehicle manufacturers may have to reduce warranty periods and customers should be properly compensated for any energy efficiency loss of the battery.

- The impact of such charge-discharge cycles must also be properly considered in the assessment of in-service battery performance that vehicle manufacturers will face under the framework of EU vehicle type approval.
- The framework needs to be established across many different regulatory acts regarding battery design and performance and appropriate service-level agreements would be required between vehicle manufacturers and the parties who will benefit from taking vehicle battery energy back into the grid.
- However, we caution that accessing raw Battery Management System (BMS) data is not a reliable way to determine the state of health of a vehicle battery, considering that the algorithms used will differ depending on the type of battery therefore making direct comparisons impossible.
- Furthermore, providing access to BMS data also raises issues relating to intellectual property rights, as BMS data typically comprises proprietary information which cannot be disclosed without limitations. Vehicle manufacturers are committed to sharing vehicle-generated data with third-party services in a manner that ensures the protection of the vehicle user's personal data, does not endanger the safe and secure functioning of the vehicle, and does not undermine the liability or intellectual property rights of the vehicle manufacturer.

FUEL QUALITY DIRECTIVE (FQD)

The main changes to the FQD are:

- The incorporation into the proposed 2030 RED transport target of the principle behind the GHG reduction target for fuel suppliers that previously existed in Article 7a of the FQD (ie nominally a 6% GHG reduction by 2020 compared to the fuel baseline standard based on the life-cycle GHG emissions per unit of energy from fossil fuels in 2010) and;
- The deletion of the sustainability Articles and Annexes in the FQD (that will now only be in the RED).

It is a major disappointment that the first two words of the name of the Directive (ie **'Fuel Quality'**) appear have been forgotten because the only other change to the

FQD is to increase the maximum FAME³ content of diesel from 7% v/v (B7) to 10% v/v (B10) and to indicate that if B10 is sold, B7 must be sold in parallel to fuel vehicles not compatible with the use of B10.

In terms of 'Fuel Quality', far more can be and should be proposed, as this section describes below.

PROPOSAL FOR B10 DIESEL

The increase to B10 is not a good idea considering:

- The use of first-generation biofuels (food and feed crops) such as FAME, which is blended with fossil diesel, remains capped in the RED at 7% of final transport energy consumption, and many member states want to reduce the use of such first-generation biofuels even further.
- Waste streams such as used cooking oil and animal fat that meet the RED sustainability criteria and can be used to produce FAME are far better used as a feedstock for Hydrotreated Vegetable Oils (HVO) production – due to their impurities which cause vehicle technical problems.
- However, even with high quality FAME, vehicle compatibility issues, most typically fuel filter blocking (leading to lack of fuel to the engine when demanded), increases with increased FAME content in diesel.
- The production capacity of HVO is expanding. HVO is an alternative and sustainable drop-in blending component to reduce diesel fossil content and HVO can also be used on its own.
- For heavy-duty vehicles, the Euro VI emission requirements require type-approval tests to be met using B7 diesel. If a manufacturer would declare such an engine can also use B10, the engine would require an additional full Euro VI type-approval using B10. This additional and costly burden will mean many manufacturers of heavy-duty vehicles will not declare compatibility with B10 (see ACEA B10 compatibility list⁴) and many manufacturers of passenger cars and vans also do not accept the use of B10 in their vehicles.

³ FAME: Fatty Acid Methyl Ester. A biological component considered as a first-generation biofuel that can be produced from various waste streams but also food / feed crops. Although the physical characteristics of pure FAME (B100) used to blend with fossil diesel to make B7 (or B10, or Bxx) is covered by standard EN 14124, the quality of biodiesel containing FAME at levels of B7 can still cause serious vehicle operational problems, especially in colder conditions.

⁴ ACEA B10 compatibility list, see: <https://www.acea.auto/publication/b10-diesel-fuel-vehicle-compatibility-list/>

- The impact of B10 as a market diesel fuel will therefore be minimal, especially since filling stations will also have to sell B7 in parallel (as a 'protection grade'). Fragmentation of the EU fuels market, where different fuels appear in different countries, must be avoided.
- If the intention is that B10 becomes the main diesel grade, customers and operators will not accept that B7, which all diesel engines can use, would end up being sold as a premium diesel fuel (general limitation to fillings stations having two diesel nozzles).
- There are much better renewable solutions to replace fossil diesel, ie HVO, which can be used as a drop-in fuel in all diesel engines, old and new. That is why HVO should be promoted in the FQD.
- Today we see only France selling B10 in some areas of the country and ACEA would not want to see other countries selling B10 in a patchwork across the EU. Such market fragmentation is not beneficial for customers and operators, fuel suppliers and vehicle manufacturers.

Therefore, ACEA asks that the proposal to amend the FQD:

- Retains B7 as the basis for the general market diesel commonly and widely used across the EU.
- Deletes the proposal for B10.
- Gives greater emphasis within the EU diesel grade (FQD Annex II) to the use of HVO as the preferential non-fossil low-carbon renewable and blending component that can also meet the proposed sustainability criteria of the RED.

THE FQD IS ONLY PERMISSIVE, MAKE IT A REGULATION (FQR)

- Vehicle manufacturers type approve vehicles for the EU internal market. A vehicle type approved in France, for example, has the right to be sold and circulate throughout the European Union (and European Economic Area). Vehicles are type approved to meet the latest Euro 6 / VI emission requirements in the laboratory using reference fuels (common specifications for test fuels).
- However, the more stringent pollutant emission requirements must now be met during on-road driving using market fuels. Along with more stringent emission limits, the coming Euro 7 / VII emission standards will likely make the on-road test requirements more severe.

- In this respect it is essential that market fuels to be used during type approval via on-road tests throughout the EU must be common across the EU in terms of availability and in terms of high quality.
- The proposals outlined above to amend Annex I (petrol) and Annex II (diesel) to help improve engine pollutant emissions is one factor. The second factor must be to make the FQD a Regulation so that the fuels prescribed in the FQD (and completed by the appropriate CEN standard) are actually sold across in all member states of the EU and market fragmentation is avoided.

Therefore, ACEA asks that the proposal to amend the FQD is extracted from the current proposal that combines RED and FQD in one proposal and instead agree a new stand-alone Fuel Quality Regulation (FQR).

FURTHER AMENDMENTS TO THE FQD

- Aside from the points mentioned here, further technical amendments to the FQD will be detailed in a separate ACEA position paper (to be published later).



ABOUT THE EU AUTOMOBILE INDUSTRY

- 12.6 million Europeans work in the auto industry (directly and indirectly), accounting for 6.6% of all EU jobs
- 11.6% of EU manufacturing jobs – some 3.5 million – are in the automotive sector
- Motor vehicles are responsible for €398.4 billion of tax revenue for governments across key European markets
- The automobile industry generates a trade surplus of €76.3 billion for the European Union
- The turnover generated by the auto industry represents more than 8% of the EU's GDP
- Investing €62 billion in R&D per year, automotive is Europe's largest private contributor to innovation, accounting for 33% of the EU total

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