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ACEA input to the DG TREN public consultation on

"Biofuel issues in the new legislation on the promotion of renewable energy"

Section 1 – How should a biofuel sustainability system be designed?

Questions 1.1 to 1.6 (possible way forward):

ACEA has no comments.

Section 2 – How should overall effects on land use be monitored?

Questions 2.1 and 2.2 (a way forward):

ACEA has no comments.

Section 3 – How should second-generation biofuels be encouraged?

Question 3.1 a,b,c (definition of second-generation biofuels):

Second generation biofuels may include all new technical solutions (either process or feedstock) that bring a significant CO₂ advantage compared to fossil fuels or current first-generation biofuels. They must also respect the three environmental criteria for sustainability that are proposed in Box 1 of the consultation paper since raw material production may interfere with the food chain and current land uses.

Certain second-generation biofuels will give benefits but limiting the denomination “Second-Generation Biofuels” to a given list of processes or feedstocks such as cellulosic material, may exclude other processes that may become advantageous in the coming years. Instead of focusing on some specific technology, it is better to set wider performance criteria that reward processes that meet some or all the objectives of EU energy policy.

- clear CO₂ emission reduction benefits (lower use of fossil fuels);
- diversity from petroleum products;
- more efficient use of land (lower competition with food chain or better use of total available biomass).

The advantages and the environmental performance of different biofuels should be based on a Life Cycle Analysis (well-to-wheel and tank-to-wheel) on a clear and unambiguous basis. The Commission could establish at EU level a database and the corresponding assessment methods. ACEA notes that today there is insufficient data and indeed there is disputed data and this makes it difficult to build accepted policies. Within such a database, the environmental footprint of different biofuels and of their production process should be assessed and agreed.



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Question 3.2 (possible way forward):

The 2020 challenge is to reach 10% (in energetic content) of renewable fuels that bring real CO₂ savings. Strong support to the development of new processes should be a European priority in the forthcoming years in order to favour the emergence of processes with the highest possible yields per land surface and the highest energy efficiencies.

However, ACEA does not think that this 10% target should be changed with the fuel nature as proposed (2% first generation equal 1% of second generation).

Once efficient processes are selected, there should not be any objection to promoting the best pathways but with incentives that are proportional to the real environmental benefits in terms of CO₂ savings and the availability of the different pathways.

The EU must set clear policy road maps as soon as possible regarding development, promotion and deployment of second-generation biofuels with a strong element being EU harmonization (see comments to question 4.1) to avoid fragmentation of the EU market.

To promote second-generation biofuels there should, as far as possible, be a consistent EU framework on taxation policy related to biofuels and vehicles that are specifically adapted to use such biofuels. Taxation should be defined consistently with environmental / CO₂ emission benefits in mind and with the aim of stimulating manufacturing development in such technologies. Such policies must have a high visibility all stakeholders and ACEA recognises that the development of a second-generation biofuel infrastructure will require high investment that requires robust and consistent policy making.

In the case of both first and second generation biofuels, it is essential that biofuel distribution systems be clearly defined such that the right quality fuels reach the vehicles for which their use is assured without concern for vehicle owners in terms of vehicle operability and durability.

Question 3.3 (benefit for second-generation only if they achieve a defined level of greenhouse gas savings):

ACEA generally agrees with this philosophy. Second generation biofuels should at least achieve the same CO₂ savings as those achieved by first generation biofuels. They should be considered favourably if they achieve the three criteria listed in Box 1 of the consultation document.

Section 4 (Further action to achieve 10% biofuel share):

Question 4.1 (diesel fuel with 10% biodiesel by volume):

Insufficient fuel quality may generate problems for the end user (and the vehicle!) that would quickly bring the market for these fuels to a standstill.

There are still technical concerns regarding diesel fuel containing 10% by volume of biodiesel (the biodiesel meeting EN14214). It might be acceptable as the general market fuel sometime in the future, provided that the finished fuel complies to a European standard that will ensure essentially unaffected vehicle operation and durability. However, at this time ACEA notes that B10 is a fuel for dedicated vehicles only and therefore it must be supplied at the filling station through a separate



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pump that is clearly labelled “B10”. Today’s B5 should remain the general diesel fuel for all vehicles.

B10 and higher blends (i.e. B30) might be a suitable route for captive fleets in the shorter to medium term. Although these fleets may be small in comparison with a total national fleet of vehicles, they do consume a proportionally large volume of diesel so greenhouse gas savings could be substantial.

However, alternatives to producing diesel from biomass must also be recognized and encouraged. These include the use of vegetable and similar oils for hydrotreatment and co-processing within refineries, or the production of biomass to liquid (BTL) synthetic diesel. Such processes produce a high quality fuel that would be a welcome blend component. The use of such blend components will enable the achievement of equivalent 10% biocontent diesel fuel that does not have the same technical concerns as biodiesel.

In this respect, it is vitally important to define a broad-minded B10 specification to speed up the development of technically acceptable first generation biodiesel. Common EU standards must also be defined for any higher blend of biofuel, e.g. B30 or even E85, and ACEA supports that biofuel standards be addressed at a global level.

Second generation biodiesel should be similar in term of properties to current diesel fuel. Their introduction in 10% blends should not be a problem for modern combustion engines.

Question 4.2 (high blends of ethanol and biodiesel):

Gasoline - concentrating on the encouragement of ethanol as a fuel component ignores other components such as ETBE that is more readily blended, transported and used for vehicle transport. The criteria should be set for an equitable encouragement of alcohols and ethers of biological origin, allowing the market to choose the most efficient amongst them.

High blends of alcohols or ethers are feasible for flex-fuel vehicles. Their use could be widespread if the economic advantages for the vehicle users are clearly seen. However, direct financial incentives on vehicle retail price or annual taxation might not be the most efficient incentive since a flex-fuel vehicle owner is free to choose the most convenient low biofuel grade due to the flexibility of his engine. Perhaps the best way to succeed is for Member States to introduce fuel price differentiation at the pump leading to a decrease in the cost per kilometre travelled.

Diesel - a 100% biodiesel fuel will have a negative effect on passenger cars engines. ACEA believes it would be preferable to support B30 as a fuel for captive fleets such as local authority or government vehicle fleets. Again, a high quality fuel is required to ensure trouble-free vehicle operation. Financial incentives to provide clear economic advantages for the operation of such vehicles through fuel incentive are essential for the success of such a measure.

High blends of second generation biodiesel fuels, such as BTL and FT, could be encouraged as the fuel quality is expected to be high and blendable with existing petroleum based diesel fuel without having negative impacts on vehicle operation.

Question 4.3 (biomethane, methanol, DME):



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Methanol is a neurotoxic and is highly aggressive to vehicle fuel system materials. It is not acceptable as a fuel component. Its impact on evaporative emissions, even at very low blends would be significant due to its high permeability and effect of greatly increasing vapour pressure in gasoline.

Special vehicle technology and fuel distribution systems are required for biomethane and DME, so their use is unlikely to be widespread. They could be encouraged for specific use in captive fleets where the conditions appear more favourable. The decision to follow this pathway should be made on a political-economic basis.

Question 4.5 (can 10% biofuel by energy be reached):

10% biofuels by energy in 2020 may be reached only by introducing second-generation biofuels, the development of which remains the real challenge over the next decade.

The Commission should perhaps undertake to conduct a review in 2015 in order to list all possible alternative processes, the compatibility of the fuels with engines and to determine if the 2020 target is going to be achievable.

Combining 10% by volume of alcohols/ethers in petrol and 10% biodiesel in diesel fuel will give a bio energy content in the order of 7.8 – 8% in generally available market fuels. The remaining 2 – 2.2% has to be found from other options, such as E85 for flex fuel vehicles and B30 diesel fuel for captive fleet vehicles.

A time-frame of 2013 – 2015 is foreseen as being necessary to allow the expansion of flex-fuel vehicles in the market to proportions that allow significant consumption of high blend fuel. The vehicle technology needs to be further developed for lower cost. For diesel vehicles operating on B30, the vehicle technology does already exist with some manufacturers but the market conditions need to be established to widen the use of such fuel.

Bear in mind that the development of new products by the vehicle industry requires a considerable lead time and compatibility of new fuels needs to be assured for compliance with the already agreed Euro 5 & 6 emission standards plus likely OBD standards. The vehicle industry needs stability to plan and recoup investments. Changes to market fuels will change the development goalposts and policy makers should consider this very carefully.

Question 4.6 (role of taxation):

Taxation is a key element and powerful tool in the promotion of biofuel use. Biofuels have higher production costs today than conventional petroleum fuels and they usually have a lower energy content than conventional mineral oil fuels. To achieve the benefits listed in the reply to question 3, it will be necessary to support biofuel use through financial incentives, i.e. reduced fuel duty for high blend fuels.

The vehicle user must perceive a clear economic advantage for himself in terms of energy purchase for transport when using biofuels if the market is to succeed. The most efficient incentive is to lower fuel price so that customers will achieve the lowest cost of fuel per kilometre when using biofuels.



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The biofuel producers and distributors may require financial encouragement through taxation in order to invest in the infrastructures to support the new fuels being considered.