ACEA

ACEA Communication – vehicles and biofuels towards 2020

Summary:

- The European auto-industry is ready to play its part in helping to achieve the target set in the Directive on the promotion of the use of renewable energy sources, namely for the consumption of energy from renewable sources in transport to be at least 10% in each member state by 2020;
- E10 and B7 will contribute significantly to meeting the 10% target but there are valid alternatives to achieving the 10% target, other than simply escalating the blending of biofuels at levels beyond E10 (ethanol) and B7 (FAME);
- The auto-industry is open to investigating the pros and cons of all technically feasible and commercially viable options for the future that can help contribute to meeting the 10% target whilst also avoiding unnecessary costly technology and infrastructure measures for which the consumer will end up paying;
- Political support and appropriate policy tools are needed now to encourage the development and wider market access to new and more sustainable advanced biofuels that could increase the biocontent in road transport fuels;
- Any new general market fuel must be covered by robust quality standards developed by CEN and applied equally across the EU27 to ensure that such fuels are 'fit for purpose' without environmental or vehicle-operational consequences;
- The introduction of any new general market fuel must be introduced across the EU27 according to a harmonised timetable and give the auto-industry sufficient lead-time to develop compatible new vehicles;
- ACEA strongly recommends that the member states and the Commission coordinate identical biofuel blending across the EU27 so the consumer has a proper common market for general market fuels;
- Other transport sectors such as rail, waterways and aviation must all play their part in helping achieve the 10% target.

Date: 19th April 2010

About ACEA:

ACEA (the European Automobile Manufacturers Association) represents the 15 major European vehicle manufacturers. The automotive sector is an elementary part of the manufacturing industry in the EU. Europe is the world's largest vehicle producer. The auto industry provides high-skilled jobs to 2.3 million Europeans and indirectly supports another 10 million families. The ACEA members yearly invest about 5% of turnover (over € 26 billion) in R&D. The automobile industry is the largest private investor in R&D in Europe.

This paper provides the point of view of the European auto-industry on vehicles and biofuels in respect of the transport sector's 10% renewable energy use target for 2020.

Background:

The Directive **on the promotion of the use of energy from renewable sources (RED)**[(1)] has established the commitment of the European Community to the EU-wide development of energy from renewable sources beyond 2010. The Directive provides a common framework to help achieve a 20% share of energy from renewable sources in the Community's gross final consumption of energy in 2020. This will be achieved through member states achieving their own national targets for renewable energy consumption in general and also by ensuring that the share of final consumption of energy from renewable sources in transport is at least 10% in each member state by 2020.

The European Council of March 2007 has also underlined that the measures must be introduced in a cost-effective way[(2)].

Another important part of the Community measures supporting renewable energy use in transport is the **Fuel Quality Directive (FQD)**[(3)] which lays down certain health and environmentally-related parameters for petrol and diesel market fuels that will be applicable from 1st January 2011 (the other necessary quality parameters coming via the respective CEN standards[(4)] that are in preparation). The FQD sets maximum limits of 10% by volume (v/v) for ethanol blending in petrol (i.e. "E10") and 7% v/v FAME blending in diesel[(5)] (i.e. "B7").

According to the RED, member states are required to submit to the Commission, by the end of June 2010, their national renewable energy action plans that will, for example, establish a strategy for each renewable energy foreseen to be used in transport between 2010-2020. Some member states are therefore asking important questions about the contributions from the transport sectors to the 10% target and how biofuels and road transport will contribute to that overall target. In particular, they are now asking about the future biofuel scenarios that the JEC consortium[(6)] study will recommend to policy makers.

Issues:

1. *E10 and B7 will contribute significantly but will not be enough to achieve the 10% transport target:*

ACEA recognises that E5, E10 and B7 biofuel blends, as mandated by the FQD, will not fulfil the target of 10% renewable energy use in transport by 2020. **Maximising the availability and consistent blending close to the maximum limits of these low blend biofuels as general market fuels throughout the year is imperative. This will achieve in the region of 6.4% renewable energy use in road transport by 2020.**

ACEA strongly recommends that the member states and the Commission coordinate identical biofuel blending across the EU27 so the consumer has a proper common market for general market fuels.

Pending the final publication of the FQD and the RED, ACEA published, in June 2009, a biofuels statement[(7)] in which the European auto-makers committed to ensure that all new vehicle models would be compatible with E10 and B7 by 2010, as part of an integrated approach in support of the EU's renewable energy strategy.

---

(1) Directive 2009/28/EC, Official Journal of the European Union L140, 5.6.2009, p.16.
(2) e.g. see recital (9) of Directive 2009/28/EC.
(3) Directive 2009/30/EC, Official Journal of the European Union L140, 5.6.2009, p.88.
(4) EN228 for unleaded petrol and EN590 for diesel.
(5) The new Article 4(1) in the FQD permits member states to go higher than 7% FAME in diesel.
(6) JEC (JRC, EUCAR, CONCAWE) consortium study entitled "Biofuels program".
(7) See: http://www.acea.be/images/uploads/files/20080717_ACEA_Statement_on_Biofuels.pdf

However, there will remain for a significant number of years, vehicles in the EU fleet that will need to use today's standard general market fuels, especially E5 petrol due to compatibility problems (i.e. a 'protection grade'). The vehicle fleet picture may well be different in various member states.

Therefore it is of utmost importance that oil suppliers continue to ensure the availability of E5 to enable customers to continue to purchase the necessary compatible fuel for the operation of their vehicles while at the same time making E10 and B7 available across the EU as mandated by the FQD.

2. Going further than E10 and B7 in time for 2020:

ACEA does not discount looking at the pros and cons of all biofuel options for the future, including their compatibility for use in the EU vehicle fleet, but there are valid technical and environmental reasons why going beyond E10 (specifically based on ethanol) and B7 (specifically based on FAME) for general petrol and diesel market fuels is a problem. Going beyond E10 and B7 is not an essential measure towards the achievement of the 10% target. Other options are available.

That's why the ACEA biofuels statement[7] recommended that a medium-term review be undertaken by 2015 to consider the merits of moving to higher levels of low blend biofuels in general market fuels (i.e. beyond E10 and B7) and until that time, no EU member state should introduce blends at higher levels than mandated by the FQD, except for dedicated applications to ensure the harmonised availability of general market fuels across the EU27 and thereby avoid consumer confusion at the filling pump.

Policy makers and industry need to explore together, and in a cost-effective way, the political and technical means if there is a cost-effective need to go beyond E10 and B7 for the road transport sector as a whole and also consider all other means of addressing the 'renewable energy use shortfall' across all modes of transport.

Political support and appropriate policy tools are needed now to encourage the development and wider market access to new and more sustainable 'drop-in' advanced biofuels that could increase the biocontent in road transport fuels, e.g. HVO, BTL, cellulosic (or advanced) ethanol, in time for 2020. Such biofuels have the advantage of being fungible with existing fuels and the existing fuel distribution network and they offer the potential for higher greenhouse gas emission reductions.

ACEA estimates up to 2.7% renewable energy use in transport coming from the introduction of such new advanced biofuels based on oil industry estimates of production capacity.

3. Standards and appropriate lead-time for new biofuel blends:

There must be clear and robust quality standards developed by CEN for new biofuel blends to ensure they are 'fit for purpose' without environmental or vehicle-operational consequences. Such international standards must be applied consistently across all member states.

The ACEA biofuels statement[7] specifically mentioned the need for clear quality standards for B7 and neat biodiesel (i.e. B100) to ensure the fuel is 'fit for purpose'. However, since the ACEA biofuels statement was published there is now also a clear need for the applicable CEN standard to ensure that E10 is also 'fit for purpose' so that vehicles can operate as designed on this fuel without consequence.

Any new general market biofuel blend must be covered by a CEN quality standard for the biofuel element and the final blend and such new biofuel blends must be introduced across the EU according to a harmonised timetable applied by all member states. The introduction of any new and sustainable biofuel beyond those mandated by the FQD must give the auto-industry sufficient lead-time (i.e. up to 5 years once a new fuel standard is established) to develop compatible new vehicles and also take into account the time it would take for sufficient numbers of compatible vehicles to be on the roads across the EU to sustain the consumption of such new biofuel blends.

4. There are not just low blend biofuels available to meet the 10% target:

Alternative vehicle powertrains, such as (E85) flex-fuel vehicles using biofuels/bioethanol, possibly CNG vehicles using biomethane, heavy-duty vehicles using E95 or DME and new electrically chargeable vehicles, can provide a real contribution to reducing road transport greenhouse gas emissions, but there is no silver bullet. Most, if not all such solutions will require a substantial effort and huge investment from the vehicle manufacturers.

Different policies dealing with, for example, new vehicles and new infrastructures will need to be joined-up and coordinated across a consistent framework. ACEA is open to discuss a range of necessary policy instruments for the future.

ACEA estimates approximately 0.9% renewable energy use being enabled by alternative vehicle powertrains by 2020, based on current auto-industry estimates for the penetration of such new technologies into the 2020 vehicle fleet stock.

However, it should be borne in mind that different member states might see different penetration rates, depending on the development of the necessary national infrastructures and support mechanisms.

5. Other transport sectors must play their part in achieving the 10% target:

Policy makers should not take what they might perceive to be the 'easy option' that road transport would achieve all of the 10% renewable energy use target for 2020.

Other transport sectors such as rail and waterways (where there are plenty of realistic biofuel options) and aviation (where options are more restricted for aviation fuel specifications but the aviation industry does have ETS) have valid options to contribute and none should be discounted.

ACEA estimates at least 0.7% renewable energy use is possible from these transport sectors by 2020.

Conclusions:

The auto-industry is ready and willing to play its part in helping to achieve the 10% renewable energy use target for transport. However, it cannot do it all on its own and other transport sectors and other industries need to play their part in an overall integrated approach to help reduce life-cycle CO2 emissions.

It is extremely important that the European Community avoids the non-harmonised introduction of new general biofuel blends across the member states that would lead to customer confusion at the filling pump and possible misfuelling of their vehicle.

The auto-industry is facing a very high burden from current and likely future legislation but ACEA is ready to discuss all options with policy makers in formulating the necessary cost-effective policy instruments to help achieve the 2020 renewable energy use target for transport on time and providing that agreed solutions avoid fragmentation across the EU while at the same time ensuring no detrimental impact on vehicle operational and environmental performance.

For further information contact ACEA - pg@acea.be or md@acea.be