

## EUROPIA's comments on the Commission's Fuels Quality Directive Review issued on 31<sup>st</sup> January 2007

On January 31<sup>st</sup> 2007 the EU Commission published its final recommendations on the Fuels Quality Directive Review regulating the quality of petrol and diesel road transport fuels in the EU. The member companies of the European Petroleum Industry Association (EUROPIA) would like to take this opportunity to comment on the key elements of the proposal.

While EUROPIA welcomes those fuel quality specific proposals included in the Fuels Directive, which were subject to extensive stakeholder consultation, EUROPIA remains cautious about several material proposals put forward in the current review, which are neither sufficiently based on sound science nor truly support the Commission's principle of "better regulation".

The following statement reflects our concerns related to:

- Greenhouse gas (GHG) Emissions from Road Transport
- Separate High-Biofuel Petrol Grade
- Vapour Pressure Relaxation
- Fuels for Inland Waterways and Non-Road Applications
- New Definition of Arctic/Severe Weather

### GHG emissions from Road Transport

The oil Industry shares the EU concerns around GHG emissions and acknowledges the need to take actions to reduce these emissions. The Industry recognises, and has continually communicated, that the use of biomass in transport fuels is much less effective in terms of GHG emission abatement than the use of biomass in the heat and power sectors. In order to achieve this objective, the Commission's Review proposes a number of elements that EUROPIA supports, particularly the adoption of a technology neutral approach. In this regard, EUROPIA finds of interest a goal or performance oriented approach for biofuels that would encourage bio-pathways that deliver cost effective Greenhouse Gas emission reductions.

Nonetheless, the proposal of monitoring and reducing GHG emission from fuels, being at an early stage, requires extensive stakeholder consultation as there are a number of areas, articulated below, that need to be resolved:

1. EUROPIA believes that one should differentiate within the fuels pool between fossil fuels and biofuels. Indeed **there is a fundamental difference between the two classes of fuel in terms of GHG saving potential.**
  - For both classes, it is in principle possible to reduce the energy intensity of the various production steps by improving their energy efficiency. However, **in the case of fossil fuels the Well-to-Tank emissions only represent about 15% of overall emissions.**
  - As the production processes are already very energy efficient **the margin for reductions is very limited.** In addition, refineries' GHG emissions are already regulated under the EU ETS.

2. The expected changes in diesel and gasoline demand patterns and increasingly stringent fuels specifications (e.g. sulphur) will in fact contribute to increased CO<sub>2</sub> emissions from refineries.
3. In the case of biofuel the main source of GHG savings resides in the potential for substitution of fossil energy by renewable energy. If it is assumed that higher quantities of bio-components will be used in fuels, **it is the effective GHG savings potential of the bio-components that a monitoring scheme must aim to address:**
  - Systems for the classification of biofuels must be simple and cost effective and not create undue bureaucracy.
  - In addition, each party in the supply chain, must be held responsible to provide the appropriate information to be passed along the biofuel supply chain to enable an accurate assessment of the overall GHG emission performance. There are a number of schemes currently being developed by Member States.
  - An EU agreed methodology should be developed prior to introducing legislation which defines ambitious future targets.
4. EUROPIA considers **the proposed target of 1% p.a. GHG emission reduction in the carbon content of fuel from 2010 to 2020 as too ambitious.** The resulting 10% GHG emission reduction would translate into an approximate 20-30% volume of biofuels, assuming typical biofuel GHG saving from 40 to 50% and recognising that the biofuel share in the initial year (2011) might be different from country to country. This level of penetration is certainly unrealistic based on purely EU indigenous production and it is questionable whether sufficient imported supplies can be made available within the proposed timeframe. This level of blending of biofuels is also not compatible with existing vehicles/ fuel specifications.
5. **This additional target may generate multiple, inconsistent and conflicting regulation** when coupled with the proposed 10% biofuels target in the Renewable Energy Roadmap and the refinery emissions caps set by ETS. This multiple regulation is unlikely to meet the Commission's own standards of "better regulation" and cost effectiveness.

EUROPIA believes that the most appropriate way to address CO<sub>2</sub> in the road transport sector is a multi-stakeholder approach, as recommended by the CARS21 Programme<sup>1</sup>, that requires action from the car and truck manufacturers, the vehicle owner (driver), the transport infrastructure operators and the fuel providers. Improvement of vehicle efficiency and freight infrastructure are probably the most effective measures to achieve material and lasting CO<sub>2</sub> emission cuts while decreasing energy consumption. Most such measures are cost effective in terms of fuel savings made by the vehicle owners.

#### Separate High-Biofuel Petrol Grade

EUROPIA would like to raise a concern that the proposed introduction of an additional High-Biofuel petrol grade allowing greater use of oxygenates, such as ethanol, will weaken the benefits of EU's current system of harmonised fuel specifications and single market in road transport fuels. These benefits consist of:

- **Security of Supply:** A high degree of exchangeability in gasoline/diesel across the EU allows the market to quickly and efficiently respond to supply chain disruption.

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<sup>1</sup> The CARS 21 - Competitive Automotive Regulatory System for the 21<sup>st</sup> Century. The objective of the Group was to make recommendations for the short-, medium-, and long-term public policy and regulatory framework for the European automotive industry, which enhance global competitiveness and employment while sustaining further progress in safety and environmental performance at a price affordable to the consumer.

- **Supply Chain Cost minimisation:** The handling of large volumes of standard grade products across a single market allows a high degree of supply cost optimisation, allowing product to be delivered to the consumer as efficiently as possible.
- **Engine/After-treatment design and the control of regulated emissions:** The standardisation of fuel specifications provides an effective and consistent fuels platform that enables the automotive sector to design engine and after-treatment technologies that can meet vehicle emissions regulations irrespective of where a vehicle is driven in the EU.

The introduction of additional fuel grades risks degrading these benefits and exposing the European market to a proliferation of fuel specifications and the consequent risks. These, EUROPIA believes, include:

- **Consumer Confusion:** An additional gasoline grade at the service station is likely to cause consumer confusion and could result in misfuelling, and therefore consumer dissatisfaction, as there is no easily-implemented way to assist consumers with a choice of gasoline grade.
- **Consumer Choice:** We also believe that it is very likely that consumers will choose between fuels available at the service station based on price and availability, rather than on the OEM's recommendations.
- **Biofuel Targets:** The creation of an additional gasoline grade will not facilitate the attainment of the aggressive biofuel targets. More precisely:
  - Consumer uncertainty, lack of awareness, and price behaviour will almost certainly limit the up-take of the new grades, irrespective of the actual supply availability.
  - The significant costs and lead-time required to install the additional supply infrastructure will limit the rate of penetration of these fuels into the market.
  - A lack of clarity on the portion of vehicle fleet that is compatible with these grades will hinder Member States achieving the already ambitious biofuel targets.

In view of the above, EUROPIA believes that the increased use of biofuels should be associated with standardised grades of road transport fuels and should not result in the proliferation of additional grades.

The recommended way forward is, in the spirit of multi-stakeholder approach, to work with the automotive industry towards determining, within the framework of EN228, the maximum acceptable biofuel technical limits. The experience from markets where a 10% ethanol gasoline blend is marketed as standard grade (e.g. USA, Australia) should be taken into consideration. If acceptable, the limit could then be raised on a phased basis over time as the vehicle fleet evolves (i.e. with the scrapping of older vehicles), and as more experience is gained with actual performance in the field.

### Vapour Pressure Relaxation

As an outcome of the Auto-Oil Programmes, which were supported by all stakeholders, the Commission defined fuel standards for environmental reasons. For control of Volatile Organic Components (VOCs) a maximum summer vapour pressure of 60 kPa was imposed in most countries while the vehicle fuel tanks were fitted with a carbon canister.

Any consideration now for a relaxation of the vapour pressure limit should apply to all fuels irrespective of their composition and should take full consideration of all environmental implications.

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A recent JRC/EUCAR/CONCAWE study<sup>2</sup> showed that when using the standard test procedure raising the vapour pressure of both pure hydrocarbon and ethanol containing fuels from 60 to 70 kPa had no significant impact on actual vehicle emissions.

However, ethanol behaves differently to hydrocarbon fuels in carbon canisters, as it may reduce the ability of the canister to absorb further hydrocarbon vapours resulting in their potential release into the atmosphere. A study<sup>3</sup>, supported by the Swedish government, showed an increase in the number of on road vehicles not meeting the statutory maximum VOC emissions.

Additional work is therefore needed to better understand the impact of real world conditions on evaporative emissions from in-use vehicle.

### **Fuels for Inland Waterways and Non- Road Applications**

EUROPIA is of the opinion that the logic for the proposed mandatory switch to very low sulfur diesel for non-road and inland waterway use is flawed.

It should be borne in mind that these specifications were introduced for automotive fuels to allow the correct functioning of emission reducing engine technologies, not to reduce the emissions of sulfur oxides from the fuel.

10 ppm diesel automotive is widely available today and will be mandatory by 2009, so any uses requiring this fuel can be supplied without any regulatory intervention. There are currently no indications that a large fraction of non-road equipment and inland vessels will be equipped with such emission control equipment in the near to medium future. However, as the penetration of engines with this technology progresses, the penetration of the enabling fuel will follow. This was precisely the logic for a gradual introduction for automotive use and the same logic should apply to non-road and inland waterway use. A mandatory complete switch will not yield any emission benefits for older engines, but will increase the emission of CO<sub>2</sub> from the refineries, due to the extra processing required for the entire non-road and inland waterway diesel volume.

### **New definition of arctic/ severe weather**

EUROPIA notes that there was a proposed change in a definition of “arctic/severe weather” related to vapour pressure specification. This is a complex issue that could potentially significantly affect some countries. EUROPIA would like to have more time to appropriately comment on this matter.

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<sup>2</sup> G. Martini, et al., “Effects of Gasoline Vapour Pressure and Ethanol Content on Evaporative Emissions from Modern Cars”, Joint Programme of EUCAR, JRC, and CONCAWE (2006)

<sup>3</sup> P. Asman and H. Johansson, “Evaporative Emissions Related to Blending Ethanol into Petrol”, Report of the Swedish Road Administration (Vägverket), (2006-04-03)