



GIE's answer to the European Commission's Public Consultation on reducing CO₂ emissions from road vehicles

Context

The European Commission has started a public consultation to collect opinions on EU strategy and options for reducing CO₂ emissions from road vehicles until 9 December 2011. The consultation paper provides the following context of this consultation:

“Transport accounts for around a quarter of all EU greenhouse emissions – most of that from road vehicles. The Commission's 2011 Transport White Paper foresees a 60% reduction in greenhouse emissions from transport below 1990 levels by 2050. The main greenhouse gas emitted from road vehicles at present is carbon dioxide (CO₂) – though others include methane (CH₄), nitrous oxide (N₂O), black carbon or particulate matter (PM) and HFCs from air-conditioning and refrigeration units.

The European Commission has a comprehensive strategy to reduce CO₂ emissions from new cars and vans sold in the European Union, to ensure that the EU meets its greenhouse gas emission targets under the Kyoto Protocol and beyond.

This strategy, which was adopted in 2007, aims to tackle CO₂ emissions from both the production and consumer sides and is designed to help the EU reach its long-established objective of limiting average CO₂ emissions from new cars to 120 grams per km by 2012 - a reduction of around 25% from 2006 levels.

The EU aims to reduce its greenhouse gas emissions by 20% below 1990 levels by 2020. Road transport will contribute towards this reduction as a result of a number of pieces of EU legislation, such as Regulation (EC) No 443/2009 – mandatory CO₂ emission requirements for new cars (to 2015) and Regulation (EC) No 510/2011 – mandatory CO₂ emission requirements for new vans (to 2017). The Commission is currently assessing how these 2020 car and van targets can be implemented, in particular how the reduction effort is to be spread over all models of vehicle.

The Commission is also developing a strategy for reducing greenhouse emissions from heavy-duty vehicles. In total, HDVs account for around a quarter of EU road-vehicle CO₂ emissions and this share is likely to increase. As HDVs are used almost entirely for commercial activities, there is strong pressure on purchasers to buy fuel-efficient, low-CO₂ vehicles. However, it can be argued that additional action on CO₂ reduction is needed, given factors like:

- *the need for vehicle manufacturers to invest*
- *purchasers' relatively short time horizon for fuel economy payback*
- *the external costs of CO₂ emissions that are not taken into consideration by manufacturers and operators.*

Issues raised by current Commission work on vehicle emissions:

- *For vehicles powered with internal combustion engines, most greenhouse emissions occur as the vehicle is used. With increasing use of different energy and powertrain technologies, the*



sources of emissions may change. For example, with hydrogen or electricity, all emissions occur away from the vehicle.

- *The car and van regulations include targets for 2020 (subject to confirmation in the current reviews) but nothing after that.*

For planning certainty, it is desirable to give vehicle manufacturers information about longer-term targets. However, there is considerable uncertainty over the cost and availability of technologies 10 or more years in the future. The further ahead, the greater the uncertainty.”

Online Questionnaire and answers

The questions addressed by this Public Consultation are specifically related to the road vehicles legislation, therefore, GIE would like to express its views on the role of Natural Gas (CNG and LNG) as an alternative fuel under point F.1 of the consultation: **Additional comments**.

F Additional comments

F.1 Please include any additional comments you might have (max. 5000 characters)

Meeting the EU’s very ambitious commitments towards a low-carbon economy by 2050 will require parallel development of energy efficiency measures, the development of renewable energy sources and the deployment of carbon capture and storage (CCS). Road transport will contribute towards this reduction if alternative fuels such as CNG and LNG are further developed within the road vehicle market. Most importantly, these developments will have to be accompanied by a significant development of new natural gas infrastructures.

Natural gas is the cleanest, most efficient and versatile of the fossil fuels, making it a unique choice in the path towards a lower carbon energy mix and sustainable future. The abundance of natural gas, its competitive cost of supply, its immediate availability clearly favors it as the best alternative fuel to address emission reductions at the lowest cost.

In the transition to a low-carbon economy, natural gas will play a key role in electricity production and as an alternative fuel for transports. Natural gas is the fossil fuel with the lowest CO₂ emissions, and associated with biogas will contribute to achieve the CO₂ reductions targets. In addition to appropriate standards for CO₂ emissions from vehicles, it is important to put in place requirements on energy efficiency addressing all types of fuels.

Although all fuels should be considered in the European alternative fuel strategy, Natural Gas (CNG/LNG) is the only alternative that fits to any type of vehicle (cars, trucks, ships, trains) for long and short distances. CNG is the best adapted alternative fuel for passengers’ vehicles whilst LNG is the best alternative for long distance transportation.

Natural gas (CNG and LNG) has demonstrated its great performance as an alternative fuel and is the only proven technology applicable to any kind of vehicles for short, medium and long distances.



To further contribute to a low carbon economy, biomethane can be injected to natural gas systems allowing the biogas to be mixed with the passing natural gas. Biomethane as an additional and renewable energy source promotes indigenous production and supports meeting commitments towards sustainability, diversifies energy sources and contributes to security of supply. In order to further facilitate its usage, biogas is injected to natural gas systems, which requires that it is produced, upgraded and purified to the required quality according to the specifications applied in the relevant systems. Furthermore, Biomethane has the highest energy efficiency of all biofuels per surface of land. Biofuels should be developed where possible and not competing with agriculture.

Gas infrastructures are needed to ensure the availability of CNG and LNG as alternative fuels. Gas infrastructure investment entails long-lead times and thus requires long-term visibility. A sound investment climate together with a stable and predictable regulatory framework are fundamental for the development of infrastructure. The public sector should foster the development of the alternative fuel market by promoting the development of the refueling/recharging infrastructures.

The development of this market needs significant investments in infrastructure and in converting trucks or ships. Players will be understandably reluctant to take risks to invest too much before a certain critical mass is reached and before the legislative and fiscal framework is clearer.