

02nd June 2020

FEEDBACK ON COMBINED EVALUATION ROADMAP/INCEPTION IMPACT ASSESSMENT FOR THE DEVELOPMENT OF POST-EURO 6/VI EMISSION STANDARDS FOR CARS, VANS, LORRIES AND BUSES

Air quality, especially in urban areas, is one of the key objectives to ensure health protection and reduce social costs. In this, road transport sector has an important role to play together with other parallel actions to reduce traffic congestion and optimize freight logistics and personal mobility models.

In view of the revision of the current emissions standards, NGVA Europe would like to highlight the following:

1. **Any future emissions standard should be developed after an exhaustive assessment of the implementation of the most recent Euro6/VI standards** and a deep evaluation run on independent scientific studies on health impact. This also considering a system approach, where other measures (e.g. connectivity, traffic management, new mobility models) can contribute to increase the air quality especially in urban areas. In the recent years we have seen a fast implementation of different sublevel of standards, both in the LD and HD areas. These have been fundamentally conceived to guarantee the robustness of the systems under Real Driving Emissions, introducing PEMS measurement, and they set very stringent targets already today.
2. The overall target to guarantee the robustness of the standard should be always set looking to a **fuel neutral approach, eliminating also some from the current inconsistencies in measurement methodologies currently in force** (e.g. today NH₃ measurement based on concentration rather than flow rate).
3. When referring to the simplification objective, we fully support the **creation of simple standards that can last for an adequate period of time**. This would avoid costs for continuous updating from the vehicle manufacturers side, and also provide a more transparent communication to end-users.
4. Because of the deep difference between the two markets and the products range, the merging of the **Light Duty** and the **Heavy Duty** regulations is not the correct way to achieve simplification. So **we recommend to keep the two regulations separated** and also to better consider the specificity of the Light Commercial Vehicle – LCV - segment.
5. Looking to the air quality target **the role of natural gas is key** for several reasons:
 - When looking at non-regulated pollutants, the intrinsic properties of natural gas, a completely **aromatic free** fuel, with **very low NMHC emissions**, will translate into a very low attitude in forming ground-level ozone that is detrimental to the respiratory tract and for acidification¹.

¹ https://www.iet.hsr.ch/fileadmin/user_upload/iet.hsr.ch/Power-to-as/Kurzberichte/Berichte_Uebearbeitet/EMPA-Bericht_CNG-Mobility.pdf

- Due to its gaseous nature natural gas provides **homogeneous air-fuel mixture with near-to-zero particle matter emissions**. With regard to **PN emissions**, recent experiences have demonstrated full compliancy of dedicated NG engines, even in the domain below 23nm diameter².
- After-systems systems conceived for NG applications are very robust and simple; over the efficiency in converting pollutants, they are also effective in converting unburnt methane hydrocarbons. **Current impact from CH₄ emissions from dedicated NG engines at the exhaust is as worst case around 1-2% once converted in CO₂ equivalent³**. Anyway future potential allocation of methane emissions as CO₂ equivalent value must be done only once, avoiding any duplication in both CO₂ emission regulation and in the pollutant standard (methane itself is not a harmful pollutant).
- If GHG emissions are addressed through the computation of CO₂ equivalent emissions, this means that CO₂ emissions are not anymore just translating the fuel consumption from the vehicle but, instead, the **climate change** phenomena. This should automatically open to include the dimension of **renewable fuels** in the CO₂ computation.
- Looking to the future and the potential utilisation of **natural gas-hydrogen blends**, this has been demonstrated to lead to a more complete combustion process, further lowering pollutant emissions⁴.
- Looking to the timeline needed for the renewal of the EU vehicles fleet, natural gas is also a cost-effective solution when used in **dedicated retrofit systems** to upgrade the emissions level from older vehicles.
- Compared to Diesel propulsion, NG engines halve the **acoustic emissions**, offering also ideal solutions for city overnight operations.

² http://www.gason.eu/documents/get_doc/1166

³ <https://www.sustainablegasinstitute.org/wp-content/uploads/2019/02/SGL-can-natural-gas-reduce-emissions-from-transport-WP4.pdf>

⁴ <https://publications.jrc.ec.europa.eu/repository/handle/JRC80268>
