

Press Release

Natural gas vehicles offer large opportunity for rapid reduction of GHG emissions within upcoming strategy on decarbonisation of transport

Brussels, 19 May 2016, changing to natural gas vehicles today makes it possible to reach the 2030 target of 30 percent greenhouse gas emissions reduction coming from road transport ahead of time. The target can only be reached with a higher share of alternative fuels, including natural gas, as diesel will become less attractive for air quality reasons.

The average CO₂ emissions for Europe's car fleet reduced from 162 grams per kilometre in 2005 to 127 grams in 2013, a reduction of 22 percent (ICCT, 2014). This reduction has been the result of improved fuel efficiency, but mainly happened because of a large shift in the use of petrol to diesel. As diesel will become less attractive in the coming years, through stricter rules on air pollution and cities starting to ban diesel vehicles from city centres, decarbonisation will depend strongly on alternative fuels, such as natural gas. CNG cars already comply with the 2020 average CO₂ target of 95 grams per kilometre. For trucks, the EU is working on ways to measure CO₂ emissions and aims at introducing a fuel efficiency standard for heavy-duty vehicles, which are entirely based on diesel engines. Natural gas is the only viable alternative to diesel used in long-distance trucks, as also shown by the LNG Blue Corridors Project and many fleet operators willing to switch to natural gas. "The huge potential and benefits of natural gas engines are not sufficiently rewarded", said Matthias Maedge, Secretary General of NGVA Europe.

In a 2030 scenario, industry estimates that NGVs will emit 30 percent less CO₂ compared to diesel, with even higher reduction versus petrol. On top of that, significant reductions will be achieved with increased blending of natural gas with renewable methane, including biomethane and Synthetic Natural Gas (SNG). Substantial efficiency gains in natural gas engines can still be achieved by 2030, in the scope of at least 10 to 15 %, closing the efficiency gap to diesel engines.

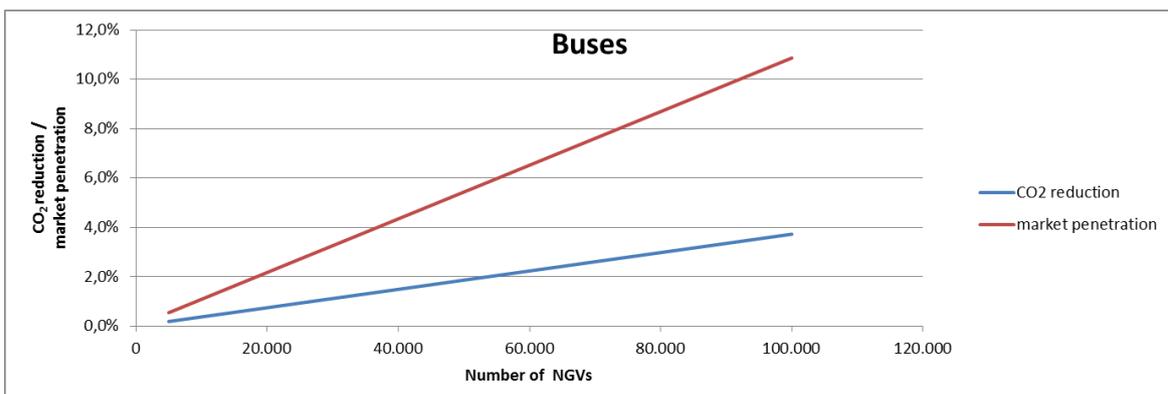
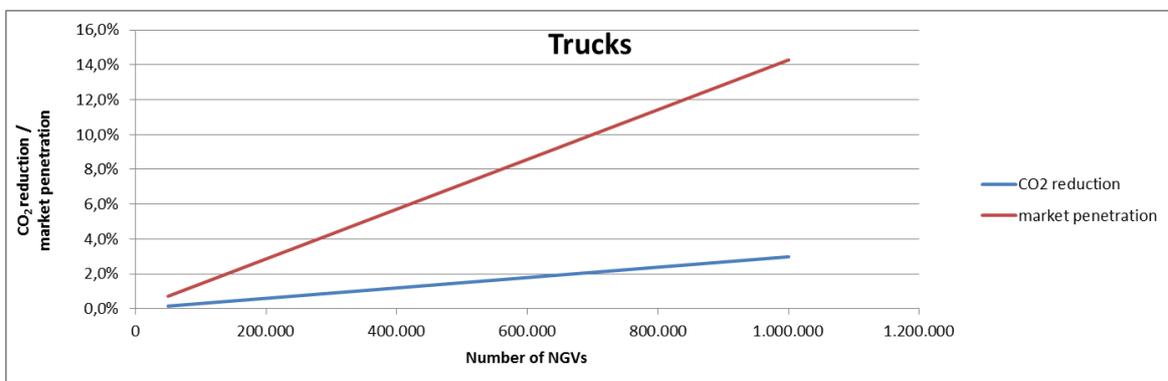
The shift to cleaner and more sustainable mobility will only work when using a mix of alternative fuels. Natural gas can be a key contributor, but also hydrogen, electricity and liquid biofuels are needed. However, the discussion must be based on a functioning market and should also take into account the costs of the fuel, vehicles and components to achieve our goals in a cost-efficient way. A realistic analysis shows that we are still relatively far away from that. In the end, all solutions must play a role wherever it makes sense, the upcoming strategy from the Commission on decarbonisation should therefore recognise CNG and LNG vehicles as crucial tool to achieve Europe's GHG reduction and sustainability goals for the transport sector.

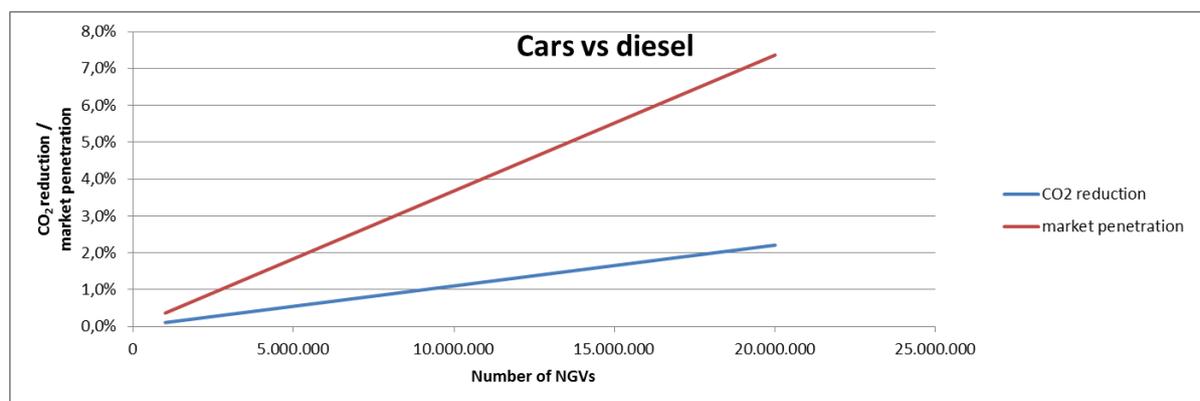
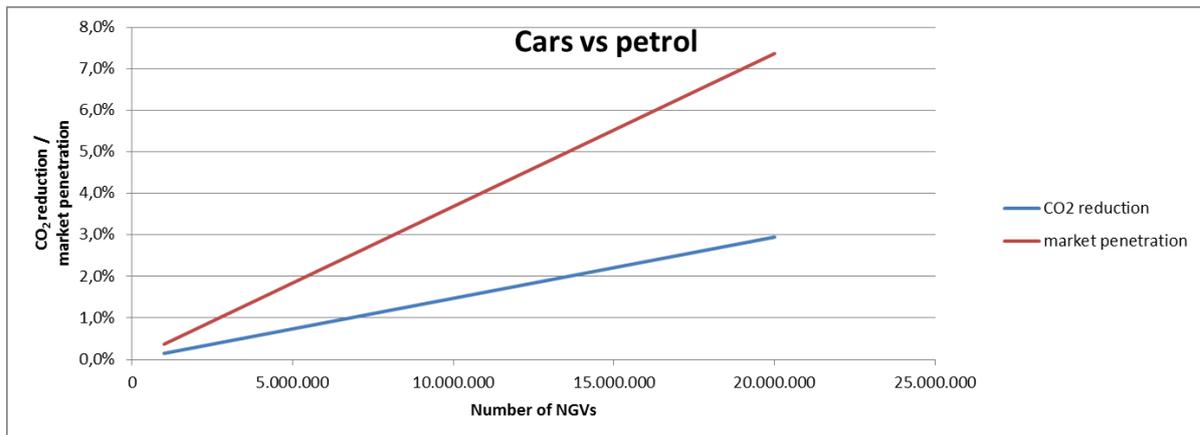
Some facts about natural gas vehicles:

- Natural gas contains less carbon than traditional hydrocarbon fuels and therefore emits much less CO₂ as a vehicle fuel: 25% on average, opening up the road to carbon neutral mobility when blended with renewable methane (from anaerobic digestion of waste or electrolysis of excise electricity). No technical blend limitations exist.

- Natural gas is the only commercial fuel alternative to diesel achieving lower CO₂ emissions.
- Combustion of natural gas reduces emissions of particulate matter (PM) and nitrogen oxides (NO_x) by over 90% compared to the very strict emission standards for new heavy duty (Euro VI) and light duty (Euro 6) vehicles, therefore making it an ideal “urban fuel” to clean the air.
- Natural gas engines emit much lower levels of other harmful and carcinogenic pollutants like non-methane hydrocarbons (NMHC), including aromatics as benzene.
- Natural gas engines are almost 50% quieter than those powered by diesel fuel.
- The full potential of natural gas engines has yet to be deployed. Optimised natural gas engines (using direct injection and higher compression ratios) will become as energy efficient as diesel engines, with an even stronger CO₂ saving potential as a result.
- Natural gas cars have lower emissions than the 95 g/km CO₂ fleet average target by 2020 and offer the most cost-efficient CO₂-mitigation option (€/t CO₂) compared with other solutions: The break-even-mileage (km/year) for CNG vehicles is already reached at 13,000 km versus 47,000 km for plug-in hybrids or more than 100,000 km for electric vehicles (University of Cologne, 2014).
- Dedicated compressed natural gas (CNG) and liquefied natural gas (LNG) vehicle technology is very mature and simple (using a 3-way-catalyst) and does not require costly additional chemical treatment (with the use of heavy systems), to meet the European and international emission limits, also under Real Driving (RDE) conditions.
- In the future, further development may also include hybridisation of natural gas engines.

2030 Roadmap: CO₂ reduction related to market share of NGVs





About NGVA Europe:

NGVA Europe is the European stakeholder that promotes the use of natural gas and renewable methane as a fuel mainly in vehicles and ships.

It serves as a platform for the industry involved in the production and distribution of vehicles and natural gas. It defends their interests to European decision makers, to create accurate standards, fair regulations and equal market conditions. NGVA Europe creates networks with interested stakeholders to reach consensus on positions and actions. It also collects, records and communicates reliable facts and significant developments in the natural gas vehicle market.

It was founded in 2008 and has more than 140 members from 40 countries.

For more information, visit www.ngva.eu