

## **CONSULTATION ON REDUCING CO2 EMISSIONS FROM ROAD TRANSPORT**

### **PUBLIC AUTHORITIES/PUBLIC ADMINISTRATIONS' COMMENTS IN RESPONSE TO QUESTIONS C.2, C.4, E.2, E.9 and F\***

The tables below display the comments provided by public authorities/public administrations in response to the questions referred to above in the online questionnaire. As answering these questions was optional, not all respondents provided an answer or comments for each of the questions. The public authority/public administration response number can be used to cross reference these comments from the public authorities/public administrations with the response which they provided to the tick box questions in the questionnaire.

\*No comments were received from public authorities/public administrations in relation to question E7

**COMMENTS FROM PUBLIC AUTHORITIES/PUBLIC ADMINISTRATIONS IN RESPONSE TO QUESTION C2**

Public Authority / Public Administration Response Number	C2 - Please specify why the current legislation is not working or delivering tangible benefits
2	<p>Current legislation has sped up a development that would have happened anyway - driven by an increasing oil price. Low hanging fruits and off-the-shelf technology is now introduced a few years earlier than otherwise would have happened. The legislation is however NOT inspiring the development of energy-efficient technologies using renewable fuels. There is a large potential to develop energy-efficient vehicles using the already commercially available fuels biogas and ethanol - possibly also biodiesel - but the legislation is not giving any incentives towards this. It is actually counteracting the development of biogas vehicles by looking only at tailpipe emissions - which has almost no correlation to climate effect in the case of biofuels. The legislation should be technology neutral and include all emissions of the system vehicle+fuel, Well-to-Wheel. Looking at vehicle and fuels separately will not lead to the objective: energy-efficient non-fossil fuelled vehicles.</p>

**COMMENTS FROM PUBLIC AUTHORITIES/PUBLIC ADMINISTRATIONS IN RESPONSE TO QUESTION C4**

Public Authority / Public Administration Response Number	C4 - Please specify why the 2020 target of 147gCO2/km for light-commercial vehicles, if technically achievable, should not be confirmed.
2	<p>The Commission first need to develop a recognised method for taking Well-to-Whell emissions into account, otherwise manufacturers will keep on developing ever more efficient - but fossil fuel dependent vehicles, not necessarily possible to operate on any renewable fuel that is possible to produce in large enough quantities or at reasonable price. We need the development of energy efficient, renewable fuelled vehicles to start. A good way would be long term targets using Well-to-Wheel values.</p>

**COMMENTS FROM PUBLIC AUTHORITIES/PUBLIC ADMINISTRATIONS IN RESPONSE TO QUESTION E2**

Public Authority / Public Administration Response Number	E2 - In your opinion, which are the policies in which changes might affect the setting of greenhouse gas targets for road vehicles?
1	Policies that relate to Climate Change, Energy Efficiency and Low Carbon, Environmental, Transport, Spatial Planning, Economic Policies and Taxation policies (including fuel duty).
2	- Fuel tax based on WTW CO2eq-emissions - environmental zoning - according to figures in this consultation, 60 % of all HDV-emissions occurs in local & regional traffic - Make it possible for public authorities to request low-carbon transport in all their procurement of both goods and transport (public procurement represent 25-40 % of EUs GDP)
3	Energie, Umwelt, Verkehr, Binnenmarkt, Forschung und Innovation
4	No Comment
5	White paper on transport and Road map for low carbon economy 2050.
6	<ul style="list-style-type: none"> <li>• Overall discussions/policies on climate change mitigation and more specifically on decarbonising transport at a European and worldwide level.</li> <li>• Policies on alternative fuels</li> <li>• Policies to provide incentives for hybrid drivelines and electric vehicles</li> <li>• Legislation on vehicle exhaust gas air quality emissions (Euro standards legislation)</li> <li>• Steps to ensure that future incremental steps in the Euro standards are met in real world driving conditions, otherwise the legislation is meaningless.</li> <li>• Light duty vehicles: - The NEDC test is not representative and low CO2 emissions can be recorded which are not repeatable in the real world. A New Harmonised drive cycle will be very important in future.</li> <li>• Heavy Duty vehicles: - CO2 limits must be mass/passenger based otherwise 2 smaller vehicles might be considered better than one larger vehicle which is not realistic.</li> </ul>

**COMMENTS FROM PUBLIC AUTHORITIES/PUBLIC ADMINISTRATIONS IN RESPONSE TO QUESTION E9**

Public Authority / Public Administration Response Number	E9 - Please specify which alternatives should be considered (to vehicle-based greenhouse gas regulation)
2	The Well-to-Wheel perspective needs to be included as soon as possible, as tailpipe CO2-emissions only is an indicator on energy efficiency of the vehicle. It has very weak correlation to climate effect also for fossil fuels. For biobased fuels and electricity, the correlation is almost none at all - which makes the current legislation counterproductive as it actually blocks the most promising fuels, e.g. biogas. Biogas emits more CO2 from the tailpipe than e.g. diesel vehicles but on a well-to-wheel basis, the emissions are only 20 % of the diesel emissions.
5	Energy efficiency in vehicle independent of energy source (including FCV, PHEV, BEV)
6	Please see attached cover letter for details.

## ADDITIONAL COMMENTS

Public Authority / Public Administration Response Number	Additional Comments (Section F)
1	<p>Argyll and Bute is situated in the south west Highlands and Islands of Scotland and as such the area is characterised by its peripherality, mountainous, coastal and island terrain, and sparsity of population, these physical features combine and compound the regions distance from economic markets and result in long journey times within the area and beyond. Argyll and Bute Council recognises that there can be conflicts between policies aimed at growing the economy and preserving the environment, particularly in an area such as Argyll and Bute which is so dependent on the road network for access to local and national centres. Despite this the Council are committed to investing in transport infrastructure which promotes sustainable economic growth whilst reducing the areas carbon footprint and protecting/enhancing the areas rich natural environment. This is underlined by the objectives set out in key strategic documents such as the Local Transport Strategy (LTS), Economic Development Action Plan (EDAP) and Renewable Energy Action Plan (REAP). The Council has been working with partners including Transport Scotland and Sustrans to deliver a network of traffic-free walking and cycling routes which will encourage modal shift away from the private car helping to reduce CO2 emissions. Argyll and Bute Council is part of the delivery forum for the Scottish Government's Cycling Action Plan for Scotland (CAPS) which aims by 2020 to have 10% of all journeys taken in Scotland by bike. As such, the Council are committed to monitoring levels of walking and cycling in the region via new and existing cycle counters and by assisting Sustrans with their annual Hands Up Surveys. The Council have worked closely with local schools to implement a series of School Travel Plans which aim to encourage more sustainable travel to school and we have participated in initiatives such as Walk to School Week and Cycling Scotland's 'Give me Cycle Space' campaign. There have been increased levels of communication with local industries to promote more sustainable freight transport, in particular the Timberlink Project where timber is shipped from local ports saving up to 1245 tonnes of CO2 per year (Forestry Commission Scotland Figures) compared to standard road haulage operations. Furthermore, in terms of the Council's own vehicle fleet, the Council has actively participated in Transport Scotland's Low Carbon Vehicle Procurement Support Scheme where grant funding has been used to assist in the purchase of low carbon vehicles. This will lead to a reduction in the Council's carbon footprint as will the introduction of all-electric vehicles to the vehicle fleet which is anticipated to happen by April 2012. For more information about Argyll and Bute Council, please refer to <a href="http://www.argyll-bute.gov.uk">www.argyll-bute.gov.uk</a></p>
2	<p>Regarding Question B4: only when a well-to-whell perspective is used different technologies can be treated equal. Otherwise the legislation will be biased in favour of fossil fuels. It might be necessary to treat technologies differently during their market development phase, as different incentives may be needed for different technologies in this phase. Once they're established at the market, they should however be treated equal - based on the WTW-emissions B5 - see answer C2</p>
3	<p>Bei der weiteren Reduzierung der CO2-Emissionen von Straßenfahrzeugen müssen die Auswirkungen auf Luftschadstoff-Emissionen beachtet werden, insbesondere die Emissionen von Feinstaub/Ruß, Stickstoffoxiden und Methan. Dies betrifft zum Beispiel die Bereitstellung von Energie für Elektrofahrzeuge aus nachwachsenden Rohstoffen (Biogasanlagen, Holzfeuerungen).</p>
4	<p>In Scotland, the Scottish Environment Protection Agency (SEPA) regulates activities that may pollute water, land and air; the storage, transport and disposal of waste; and the keeping and disposal of radioactive substances. SEPA, in carrying out its duties, is aware of the pressures placed on the environment by transport choices, in particular we are concerned by the increasing greenhouse gas emissions and local air quality impacts attributable to transport. SEPA believes the overall objective of transport policy should be clearly directed towards the reduction of overall fuel consumption in conjunction with an increase in efficiency of the fuel being consumed. Whilst SEPA supports measures establishing standards for the GHG emissions of new vehicles and measures stimulating the alternative fuels market, it is important that these are accompanied by wider behaviour changes. For instance, there needs to be a reduction in the need and frequency of journeys taken and the use of public and active modes of transport should be maximised. It is essential that measures to reduce CO2 do not have negative or unintended impacts on other issues such as air pollution. Measures to reduce CO2 from transport should work in tandem with other European measures such as the Euro standards, which aim to deliver improvements to local air quality. The European Environment Agency's report 'Towards a resource-efficient transport system' (2010) found that despite recent reductions in air pollutant emissions, road transport was the largest emitter of oxides of nitrogen and the second largest contributor of pollutants forming particulate matter in 2007. Continued pressure is required to drive down all harmful emissions from road transport (including, but not limited to, CO2). The Climate Change (Scotland) Act 2009 creates a statutory framework for greenhouse gas (GHG) emissions reductions in Scotland by setting a 42% reduction target for 2020, with the power for this to be varied based on expert advice, and an 80% reduction target for 2050. The Climate Change Act 2008 sets a similar 80% reduction target by 2050 for the whole of the United Kingdom (UK). To achieve these ambitious targets, all sectors in Scotland and across the UK will need to put in</p>

place measures to reduce emissions; therefore, SEPA welcomes targets set for 2020 for new vehicle CO<sub>2</sub> emissions and believes further targets beyond 2020 may also be useful. SEPA has previously expressed its views on biofuels to the European Commission (EC) in its responses to the consultation on Indirect Land Use Change (ILUC) (Ref: ORG13-A2583 291010 EC) and the consultation on the Clean Transport Systems (CTS) Initiative (Ref: ORG13-A2675 EC). Sustainable biofuels have the potential to make a meaningful contribution towards reducing the carbon intensity of liquid fuels used in road vehicles. However, in order that biofuels for transport deliver real-world carbon savings, it is essential that their full lifecycle impacts are taken into account, including the GHG impacts of Indirect Land Use Change (ILUC). Whilst managing GHG emissions from ILUC is a key consideration, land use change also has far reaching environmental and social consequences. SEPA is of the opinion that an adequate and robust solution to ILUC is required in order to avoid the negative indirect impacts of production of some biofuels. SEPA notes that a clear steer from the EC on ILUC is still outstanding. Over the next decade, it is likely that most biofuels will be derived from first generation crops (food crops). Biofuels derived from second generation energy crops (non-food crops) may provide better results in terms of overall GHG savings, but may still contribute towards land use change. Biofuels that do not compete for land, such as biofuels derived from wastes and residues and biofuels derived from microalgae, present an opportunity to avoid negative land use change impacts. The United Kingdom Department for Energy and Climate Change (DECC) report, 'Methodology and Evidence Base on the Indirect Greenhouse Gas Effects of Using Wastes, Residues, and By-products for Biofuels and Bioenergy' (2009), suggests some non-crop biofuel feedstocks may have other indirect effects. All biofuels, whether they are derived from crops or non-crop feedstocks, should undergo a complete GHG lifecycle analysis (including indirect effects) to establish their suitability.

- 5 Carbon reduction targets in White paper on Transport and Road map on low carbon economy 2050 are not ambitious enough, especially the period up to 2030. Indicative targets for 2025 and 2030 should be set before 2015. For passenger cars a reasonable limit could be 70 g/km and 50 g/km, respectively. Method for measuring and declaring fuel consumption and CO<sub>2</sub> for HDV should be set in due time before 2014. Soon after that date, a regulation for limiting emissions of GHG should be set. Indicative targets for new vehicles 2030 could be 30% reduction compared with 2010. Measures for a CO<sub>2</sub> free city-logistics, as mentioned in the White paper, need to be outlined in a heavy duty vehicle greenhouse gas strategy. The Commission strategy should also include measures for reducing emissions of GHG from non-road mobile machinery.
- 6 Measurement of CO<sub>2</sub> emissions from HDVs should include a factor for the load carried, otherwise known as the "intensity ratio". This means that a grammes/km figure is not adequate. Measurement should be in grammes/tonne-km or grammes/passenger-km. This will take account of the high efficiency of fully laden HDVs. This method is already used both in TfL reporting and the Greenhouse Gas Protocol. Publication of road freight vehicle lading factors at EU-27 level would be a welcome benchmark. Energy efficiency is key: delivered through improving lading factors to make better use of vehicle payload (i.e. tone-km operated per vehicle-km operated) and also technology - i.e. engine efficiency, use of alternative fuels, including electricity. HDV specification is very diverse, often bespoke. Loading ratios between empty and fully laden are much greater than for cars. It is not a case of "one size fits all". It would not be practical to set a single limit for CO<sub>2</sub> emissions, even per vehicle type. Limits must take account of vehicle size, loading factor, duty cycle and fuel or driveline technologies employed. HDV fleets may be able to take advantage of measures which compliment other industries for an overall CO<sub>2</sub> benefit. (eg a switch to bio-methane which provides benefits via reduced emissions from the waste industry). Emissions measurement should take account of the full life-cycle of the fuels and vehicle manufacture/maintenance, not just tailpipe emissions. CO<sub>2</sub> limits (question B3) based on average vehicle emissions may ignore the high efficiency of larger (or smaller) vehicles for specific operations. It is important to consider the diverse nature of HDV design. (average emissions levels may be a suitable basis for limits on generic types such as panel vans <3500kg gw). New regulations on CO<sub>2</sub> limits (question D2) which are incumbent upon vehicle manufacturers should be considered alongside other measures which would require action by vehicle operators. Electric vehicles (possibly using inductive "top-up" charging en route and overnight full charges) would benefit both air quality and greenhouse gas emissions. They may also help improve power generation efficiency by smoothing demand. EU regulation of things which are common across member states is logical and equitable. This includes emissions regulation for new vehicles. One area that is currently lacking in this regard is regulation/certification of alternative fuels for use across all member states. For the time being, the focus should be on bio-fuels (to certificate the sustainability and life-cycle CO<sub>2</sub> benefits), but could in future cover other alternative fuels that may present issues relating to sustainability and/or true life cycle impacts. HDVs (buses and lorries) are already much more efficient than smaller vehicles in CO<sub>2</sub> per passenger or tonne carried. Overall CO<sub>2</sub> levels should be reduced by increased bus patronage, shifting from less efficient modes, and increased freight lading factors. Bus priority/bus lanes should be considered to reduce CO<sub>2</sub> from buses and possibly to allow efficient freight vehicles too. Consideration could be given to use of road space / kerb space for loading and unloading and the effect on through traffic. Before mandating technical measures, it should be considered that HDVs, especially buses, are sold in small volumes, compared to cars. This may lead to high on-costs for consumers, which may damage business. TfL is promoting behavioural change for freight operators and their clients. Principally, reducing freight trips (i.e. combining modes), re-timing deliveries to avoid using the highway network at busy/congested periods and switching mode of delivery from road to more efficient alternatives - i.e. water and rail where suitable facilities exist or could be installed.