European Federation for TRANSPORT and ENVIRONMENT

Background Briefing
Updated: October 2007
www.transportenvironment.org

Regulating CO2 emissions of new cars

Context

In February 2007 the European Commission published a review of the EU strategy on reducing carbon dioxide emissions (CO2) from new cars. That review announced future regulation, for the first time.

Both the European Parliament and national environment ministers will have their say on the proposed strategy in advance of legislation expected to be presented by the Commission by the end of 2007. A legal proposal would then need to be approved, again by the Parliament and national environment ministers before becoming law, a process that typically takes 1-2 years.

Background: EU climate change policy

The European Union is committed under the Kyoto Protocol to reduce greenhouse gas emissions by 8 per cent by 2008-2012 compared to the 1990 level. In March 2007 EU leaders committed to a 20-30% reduction in greenhouse gas emissions overall by 2020.

The role of transport

Transport is the worst performing sector under 'Kyoto' and seriously jeopardises the achievement of the targets. Transport CO2 emissions in the EU grew by 32% between 1990 and 2005. Other sectors reduced their emissions by 9.5% on average over the same period. The share of transport in CO2 emissions was 21% in 1990, but by 2005 this had grown to 27%. Emissions from so-called 'light duty vehicles' (passenger cars and vans) are responsible for approximately half of this.

The car industry's commitment

The EU target to reduce average new car emissions to 120 g/km was first proposed by Germany at a meeting of European environment ministers in October 1994. The 120g/km target was formally announced in a European Commission communication in 1995.

The target has now been postponed three times. Originally the target date was set for 2005. The 1996 Council Conclusions introduced the term 'by 2005, or 2010 at the latest'.

The 120 g/km target represents a 35% reduction over 1995 levels. As CO2 is directly linked to fuel consumption, we can say that the 120 g/km target corresponds to a fuel consumption of 5 litres per 100 km for petrol cars and 4.5 litres per 100 km for diesel cars.

In 1998 the European Automobile Manufacturers Association (ACEA) committed to the EU to reduce the average CO2 emissions from new cars sold in the EU to 140 g/km by 2008. This is a reduction of 25% over 1995 levels, and equivalent to a fuel consumption of 6.0 litres per 100 km for petrol cars and 5.3 litres for diesel cars. The 120 g/km objective was, informally, postponed to 2012. In 1999, Japanese (JAMA) and Korean (KAMA) carmakers made similar commitments, to be achieved by 2009.

Overall progress of the commitment

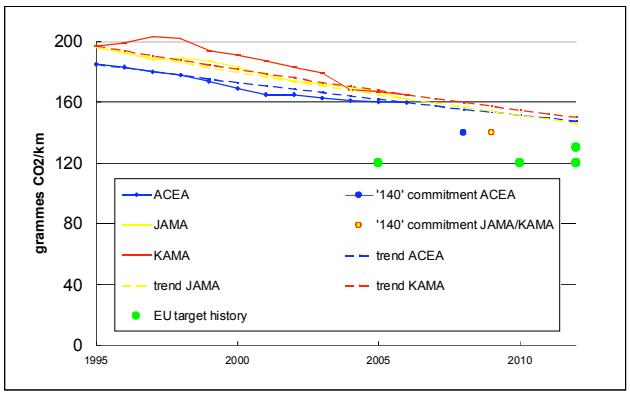
Carmakers are not reducing CO2 emissions of their products fast enough to meet the 140 g/km target by 2008/9.

In September 2007, T&E presented the latest evidence of this - the progress of the commitment in 2006. The results are shown below in a table and a graph.

Table 1: progress in 2006 of the CO2 commitment of the three car manufacturing associations

	ACEA	JAMA	KAMA	total
2004 (g CO_2/km)	161	170	168	162
2005 (g CO_2/km)	160	166	167	161
2006 (g CO_2/km)	160	161	164	160

Graph 1: progress over time in the CO2 commitment of the three car manufacturing associations, and distance to target if historic rate of improvement is not changed



If present trends continue, ACEA would miss the 140 g/km target by approximately 15 grams, and JAMA/KAMA by 13 and 16 grams respectively.

Regulation – key issues

Regulating the fuel consumption and CO2 emissions of new cars is the single most effective policy measure the EU can take to simultaneously tackle climate change, reduce dependence on oil, and to spur investment in low-carbon car technologies in Europe and elsewhere.

120g by 2012

The deadline for reaching 120g has already been postponed twice, first to 2010, then to 2012. It is a matter of political credibility not to postpone the deadline any further.

Recent research shows that if all cars on the market were equivalent to today's 'state of the art', CO2 emissions would already be 20-25% lower than today even without car engine downsizing, or a move to hybrid technology.

Long term targets are needed

Long-term targets for 2020 and 2025 are necessary to give the industry a long-term perspective for the development of more fuel efficient cars. 80g CO2 /km is needed by 2020 and 60g by 2025 in order to be consistent with scenarios to reduce CO2 emissions by 30% by 2020 and 60-80% by 2050.

If a range of CO2 targets is introduced, they should not be based on weight

We believe that Europe should have a fleet average standard for all cars sold in a given year, without distinction between classes of car. If however some differentiation on utility parameter should be allowed then the parameter should be a car's footprint (track width multiplied by wheelbase), not its weight. The use of vehicle weight as parameter would lead to more fatal accidents, to higher emissions, higher costs and reduce the incentive to reduce weight, which is one of the most important ways of cutting CO2.

Defining CO2 standards on the basis of footprint, as used in the definition of new US light truck fuel economy standards, is the best available alternative.

Strict penalties are needed

A robust compliance regime is essential for the functioning of legislation on CO2 and cars. Penalties should be high enough to ensure that carmakers really comply with the targets instead of just paying the penalty. Sales of low emitting cars could offset those of high emitters but any excess CO2 over the target for the average car should be charged at €150 per g/km, per vehicle sold.

Sales of flex-fuel cars should not count towards an energy-efficiency target

Flexfuel cars (cars which can run on biofuel) should not be rewarded for a policy designed to promote technical fuel efficiency. Biofuels are also a scarce resource and are not a substitute for energy efficiency. Given the crucial role of vehicle efficiency in achieving climate and oil dependence objectives such an 'escape' would be unacceptable.

Costs

Investments in low carbon technology research and manufacturing will create employment in Europe. Additional costs to car buyers will be offset by savings on fuel and the resulting lower fuel prices. Overall, society and the economy will benefit considerably from legislation to reach 120g/km by 2012.

Further reading

T&E position paper on cars and CO2
www.transportenvironment.org/Article454.html

Danger ahead: why weight-based CO2 standards will make cars dirtier and less safe
www.transportenvironment.org/Article457.html

2006 progress report on the car industry's voluntary commitment
www.transportenvironment.org/Article459.html

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