



COMMISSION OF THE EUROPEAN COMMUNITIES

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Revised proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**on the promotion of clean and energy efficient road transport vehicles**

(presented by the Commission)

## EXPLANATORY MEMORANDUM

### 1. CONTEXT OF THE PROPOSAL

#### • Grounds for and objectives of the proposal

The Commission's 2001 White Paper on the European transport policy for 2010 [COM(2001) 370: "European Transport policy for 2010: time to decide"] noted the need for further measures to combat emissions from transport and stated that the Commission would encourage the development of a market for "clean vehicles". The mid-term review [COM(2006) 314: "Keep Europe moving – Sustainable mobility for our continent"] announced that the EU will stimulate environmentally friendly innovation i.a. by successive Euro norms and by the promotion of clean vehicles on the basis of public procurement.

The Green Paper on energy efficiency [COM(2005) 265: "Energy Efficiency or Doing More With Less"] proposed concrete actions, such as the public procurement of less polluting and more energy efficient vehicles in order to build up a market for these types of vehicles. The following Action Plan [COM(2006) 545: "Action Plan for Energy Efficiency: Realising the Potential"] confirmed that the Commission will continue its efforts to develop markets for cleaner, smarter, safer and energy-efficient vehicles through public procurement.

There is considerable potential for reducing energy consumption and the emissions of CO<sub>2</sub> and pollutants from vehicles. However, broad market introduction of technologies with better performance is often hampered by high initial cost and therefore insufficient customer demand.

Manufacturers are also unlikely to produce special vehicle series to respond to only local or national incentives aimed at improving energy efficiency or reducing pollutant emissions.

Action at Community level is therefore needed in order to encourage the investments required for the manufacture of vehicles that are more energy-efficient and less polluting. The resulting increased demand should then create markets of sufficient size and the necessary economies of scale to broaden industrial production to large series.

The objective of this proposal is to promote the market introduction of clean and energy efficient vehicles and contribute thereby to energy efficiency in transport by reducing fuel consumption, to climate protection by reducing CO<sub>2</sub> emissions and to improving air quality by reducing pollutant emissions. This is particularly relevant for agglomerations and zones in difficulty to meet the requirements of the Air Quality Directive (Directive 96/62/EC on air quality and Directive 1999/30/EC on limit values of pollutants in ambient air).

The Commission had made a proposal for a directive on the promotion of clean vehicles through public procurement on 21 December 2005 [COM(2005) 634]. This proposal focussed on heavy duty vehicles and required a certain quota (25%) in the procurement of these vehicles for public transport service complying with the existing Enhanced Environmentally friendly Vehicle (EEV) standard of Community legislation on pollutant emissions.

The Council and the European Parliament, in First Reading, supported the objectives, but proposed a broader approach, both in the range of vehicles covered and the objectives, which should include energy efficiency improvement and CO<sub>2</sub> emission reduction, in addition to

pollutant emission reduction. The European Parliament Committee on the Environment, Public Health and Food Safety (ENVI) adopted a legislative Resolution, rejecting the Commission proposal, on 21 June 2006.

The European Council, in its meeting on 8-9 March 2007 in Brussels, emphasised that the EU is committed to transforming Europe into a highly energy-efficient and low greenhouse-gas-emitting economy. Additional legislative measures on the reduction of CO<sub>2</sub> emissions from cars have been announced by the Commission in its Communication on the new Community strategy in this field [COM(2007) 19]. Promotion of clean and energy efficient vehicle procurement can contribute to attain these objectives.

The Commission has therefore announced a revised proposal on green public procurement of road transport vehicles in the Green Paper on Urban Transport [COM(2007) 551: "Towards a new culture for urban mobility"]. It proposes that "a possible approach could be based on the internalisation of external costs by using life-time costs for energy consumption, CO<sub>2</sub> emissions, and pollutant emissions linked to the operation of the vehicles to be procured as award criteria, in addition to the vehicle price. In addition public procurement could give preference to new Euro standards. The earlier use of cleaner vehicles could then improve air quality in urban areas".

The Green Paper on Urban Transport also notes the support of stakeholders during the public consultation for a support of the market introduction of clean and energy efficient vehicles by green public procurement. Considerable net economic gain for vehicle operators and society can be obtained with the approach proposed.

This Directive is expected to result in the long term in lower costs of clean and energy efficient vehicles through economies of scale, wider deployment of these technologies, and a general improvement in the environmental performance of the whole fleet.

- **General context**

The Communication of the Commission to the European Parliament and the Council of 9 February 2005 on the review of the Sustainable Development Strategy of the European Union [COM(2005) 37] refers to the development of cleaner vehicles and traffic management in urban areas and encourages public procurement as a means of promoting eco-innovations.

The Commission proposal for an EU energy policy [COM(2007) 1: "An energy policy for Europe"] proposed an EU commitment to achieve at least a 20% reduction of greenhouse gases by 2020 compared to 1990. Binding targets of further improvement of energy efficiency by 20%, a level of 20% of renewable energy and a 10% biofuels share in the motor fuel market in the EU by 2020 have been proposed, i.a. to improve security of energy supply by diversifying the fuel mix.

The High Level Group on competitiveness, energy and the environment, in its report of 27 February 2007, recommended that "private and public procurement should take account of full lifetime costs with emphasis on energy efficiency. Member States and the EU should develop and publish public purchasing guidance on how to move beyond lowest price tendering of more sustainable intermediate goods in line with public procurement directives".

This proposal responds to the wishes of Council, Parliament and stakeholders to promote clean and energy efficient vehicles, and the recommendations of Member States and

stakeholders for a technology-neutral approach and contributes to the priorities set in the context of the Lisbon Strategy.

- **Existing provisions in the area of the proposal**

EU legislation has regulated vehicle emissions through the so called "Euro" standards, with limit values becoming tighter over the years. The latest standard implemented is the Euro 4 standard for passenger cars and Light Duty Vehicles, as from January 2005. Euro 5 for passenger cars and Light Duty Vehicles will come into force in 2009, and Euro 6 in 2014. For Heavy Duty Vehicles, Euro IV standards are in force from October 2005, Euro V will enter into force in 2008, and a proposal for a new Euro VI standard is being prepared by the Commission. Preference for the latest Euro standards in public procurement could help an early market introduction of cleaner vehicles.

The effect of the measures on pollution levels from transport has been significant. Emissions of the various regulated pollutants have fallen by between 20 and 50% on average since 1995. A further decrease is expected, bringing levels down to 25-50% of the 2000 level by 2020 (CAFE - Clean Air For Europe - modelling, 2005).

However, in many places ambient air quality still does not meet the legal requirements set by EU Directives. Limit values for particulates, which came into force from January 2005, pose problems and the same may also be expected in future with nitrous oxide when their limit values are lowered from January 2010.

Restrictions on the free circulation of vehicles are being imposed by an increasing number of cities in order to reduce emissions. Faster introduction of cleaner vehicles could help public bodies to meet the obligations arising from the Air Quality Directives and support sustainable mobility in urban areas.

- **Consistency with other policies and objectives of the Union**

The proposal will be complementary to EU measures on pollutant emission standards, CO<sub>2</sub> emission reduction through setting of fleet limits, labelling, and fiscal measures, and on promotion of the market introduction of alternative fuels, such as biofuels, and contribute to achieve the targets set for overall energy efficiency improvement.

The new Community strategy on CO<sub>2</sub> emissions from cars has been outlined in a Commission Communication of February 2007 [COM(2007) 19]. A legislative framework should ensure to reach the objective of 120 g CO<sub>2</sub>/km by a combination of vehicle technology improvements and an increased use of biofuels. The third pillar of the Community strategy to reduce CO<sub>2</sub> emissions from cars concerns the use of fiscal measures for promoting less carbon dioxide emitting passenger cars. According to the Commission proposal for a Directive [COM(2005) 261], registration and annual circulation taxes should at least partially be based on CO<sub>2</sub> emissions. Furthermore, consumer information on CO<sub>2</sub> emissions should be provided in the sale rooms and the Commission is considering the revision of the Directive relative to consumer information on fuel efficiency and CO<sub>2</sub> emissions to improve the effectiveness of vehicle labelling. This proposal on the promotion of low-CO<sub>2</sub> emission vehicles through public procurement will re-enforce the other measures already under way.

The impact of Intelligent Car Technologies on cleaner and more efficient mobility [COM(2007) 541] could be enhanced through the support of public procurement for clean and energy efficient vehicles.

Improvement of conventional and development of alternative vehicle technologies have been supported by Community funding from the research and technical development Framework Programmes and the Structural Funds, and promoted by Commission policy actions on alternative fuels and vehicles, such as biofuels, natural gas, liquefied petroleum gas (LPG), vehicles powered by electrical motors, hybrid (combustion/electrical engine) vehicles, and hydrogen/fuel cell vehicles.

The promotion of clean and energy efficient vehicles through procurement for public transport services stimulated by this initiative will accelerate the market development for these technologies and contribute to energy saving, climate protection and the improvement of air quality. There may be competitiveness benefits to reap on global markets for public transport services.

## **2. CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT**

### **• Consultation of interested parties**

#### *Consultation methods, main sectors targeted and general profile of respondents*

The Commission has held consultations with stakeholders and Member States on possible measures to promote the development and market penetration of clean and energy efficient vehicles.

Consultations have been carried out in the frame of expert studies on different approaches for this legislative initiative and enlarged for the revised proposal. They were accompanied by a Commission internal interservice group. Public hearings have taken place with stakeholders and national experts. Extended information was collected through questionnaires in the frame of the expert studies and through public consultation on internet in the frame of the preparation of the Green Paper on urban transport. Bilateral contacts have also been engaged with stakeholders in order to share information and deepen the discussion on possible approaches.

The revised proposal on the promotion of clean and energy efficient vehicles has been presented and discussed in the interservice group on the preparation of the Green Paper on Urban Transport and in interservice groups on related topics, such as general green public procurement and public procurement policies and in public conferences with stakeholder participation.

#### *Summary of responses and how they have been taken into account*

The CARS 21 High Level Group supported the Commission's initiative on the promotion of clean and energy-efficient vehicles, on the condition that a technology-neutral and performance based approach is taken.

Support for the proposal of promotion of clean and energy efficient vehicles through public procurement has been expressed at all stages of the consultations. Inclusion of external costs as award criteria and early application of new Euro standards were broadly supported.

- **Collection and use of expertise**

Scientific/expertise domains concerned

The studies carried out provided a qualitative and quantitative analysis of the impact of such an initiative through a cost/benefit analysis, and collected data to evaluate the general framework of this initiative.

The ExternE study<sup>1</sup>, the Clean Air for Europe (CAFE<sup>2</sup>) programme of the Commission, and the HEATCO study<sup>3</sup> have provided information on the costs of emissions of CO<sub>2</sub>, NO<sub>x</sub>, non-methane hydrocarbons, and of particulate matter. Costs are taken at present value to keep the award procedure simple.

Methodology used

Different approaches for a legislative action have been independently assessed by two consultants, COWI, and PriceWaterhouseCoopers. A technology oriented approach took as basis the selection of specific technologies considered as clean and energy efficient. Technology neutral approaches considered an internalisation of costs for fuel consumption and CO<sub>2</sub> and pollutant emissions into the vehicle procurement.

Main organisations/experts consulted

European Automobile Manufacturers Association (ACEA); European LPG Association (AEGPL); European Association of automobile component suppliers (CLEPA); the oil companies' European association for environment, health, and safety in refining and distribution (CONCAWE); representative CIVITAS cities (Stockholm, Bremen, Rotterdam); DEUTSCHER STÄDTETAG; European Emulsion Fuel Manufacturer's Association (EEFMA); European Natural Gas Vehicle Association (ENGVA); European Council for Automotive R&D (EUCAR); European Federation for Transport and Environment (T&E); International Union of Public Transport (UITP); and European Industry Association (UNICE).

National experts of the Member States were consulted through the Joint Expert Group Transport&Environment.

Summary of advice received and used

The principal conclusions were that this directive could have a positive impact on the market of clean and energy efficient vehicles and on the environment, and that it could support industry in the development of clean and energy efficient technologies. A technology neutral approach was recommended in order to allow flexibility for industry to adjust to technical and economic progress.

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<sup>1</sup> P. Bickel, R. Friedrich, ExternE, Methodology 2005 update, European Commission, Luxembourg, 2005.

<sup>2</sup> M. Holland, et al., CAFÉ 2005a, AEA Technology, Didcot, 2005.

<sup>3</sup> P. Bickel, et al., Stuttgart, 2006.

Internalisation of external costs in the procurement decision process was considered an effective economic approach, which would improve market transparency on the operational and societal costs of road transport vehicles and could have the potential for wider application by fleet managers, business, and private customers.

#### Means used to make the expert advice publicly available

Preparatory discussion papers and minutes of meetings and conferences have been provided on internet to all organisations involved and the wider public.

#### • **Impact assessment**

The main policy options are voluntary agreements, information dissemination, and regulatory actions. The no-policy case provides a benchmark against which the other policy scenarios should be compared.

- *Voluntary agreements* imply an uncertainty on the result and difficulties in assessing the evolution and the implementation of efforts to reach the objective. They are nevertheless an incentive to progress for manufacturers. Overall, a voluntary initiative would only involve a part of public bodies and transport operators and this would mean that its effect on the overall market would be much smaller than a general obligation. Another problem might be that vehicles responding to the procurement initiative might not be offered by manufacturers in the whole of the EU. Since the objective of the policy is to promote the market for clean and energy efficient road transport vehicles it does not seem effective to pass a new voluntary agreement with the car manufacturing industry. A voluntary scheme would imply a campaign of information and persuasion with the aim of orienting procurement decisions.
- *Dissemination of information* on using environmental criteria in the vehicle procurement process: this policy option would not involve any direct requirements. However, information and knowledge spread must be organised and the EU can provide information to the Member States. Access to information will make it easier for public bodies to take environmental criteria into account when awarding contracts and purchasing vehicles. Availability of information about technical characteristics and additional financial cost will help decision making when procuring vehicles. It could help overcoming the lack of knowledge barrier and increase the public sector's procurement of clean and energy efficient vehicles.
- *An explicit requirement* that public procurement of road vehicles takes into account energy consumption, CO<sub>2</sub> and pollutant emissions.

Different approaches for a legislative initiative to promote clean and energy efficient road transport vehicles have been analysed: technology-neutral approaches based on the integration of energy and pollutant costs in the procurement decisions, or on an existing emission standard and a technology oriented approach based on selected technologies.

#### Conclusion

The impact assessment has shown that a positive impact on environment and on competitiveness of European industry can be expected. The largest economic gain would be obtained with mandatory inclusion of external costs as award criteria in all procurement

decisions. Vehicle owners would directly profit from the energy saving over the long term, which would greatly exceed a possibly higher vehicle price. An additional benefit to society is obtained from the avoidance of CO<sub>2</sub> and pollutant emissions.

### **3. LEGAL ELEMENTS OF THE PROPOSAL**

- **Summary of the proposed action**

Operational lifetime costs of energy consumption, CO<sub>2</sub> emissions, and pollutant emissions shall be included as award criteria for all procurement of road transport vehicles by public authorities and by operators providing services under a contract with a public authority and also for all procurement of road transport vehicles for the provision of public passenger transport services under licence, permit or authorisation by public authorities. Operational lifetime costs means the monetised values for energy consumption, CO<sub>2</sub> emissions, and pollutant emissions that are linked to the operation of the vehicles to be procured, calculated in accordance with the methodology set out in this Directive.

- **Legal basis**

Article 175(1) of the Treaty establishing the European Community

- **Subsidiarity principle**

The subsidiarity principle applies insofar as the proposal does not fall under the exclusive competence of the Community.

Policies to promote green public procurement and more energy efficient and cleaner vehicles have been already adopted in some places at local, regional, and national level. Action on these levels only, however, would risk fragmentation of the internal market and lead to high costs and prevent economies of scale. Vehicle manufacturers are also unlikely to produce special model variants to respond to limited market demand. Automotive industry produces for a highly integrated EU-wide market. Support to the development of clean and energy efficient vehicle markets should therefore be harmonised on EU level to provide a cost-effective frame for industry.

Wider application of green public procurement using harmonised criteria at EU level could provide the market with significant assurance for the future of clean and energy efficient vehicles and thus provide a real stimulus to vehicle manufacturers. This could help to improve the economics of the production of these vehicles considerably by reaching a critical mass to achieve economies of scale.

Focused public procurement on a European level would also be a logical follow-up to Community funding of clean and energy efficient vehicle development, supported under the Research and Development Framework Programmes and under Structural Funds. Community funding, for example the structural and cohesion funds, could be used to promote the technological developments of clean and energy efficient vehicles for public transport and for the provision of infrastructure for alternative fuels.

Public bodies and private operators collectively procuring clean and energy efficient vehicles under the same terms of reference, would provide a significant stimulus to vehicle



manufacturers and provide assurance of a market for these types of vehicles, as stated in the Action Plan on energy efficiency. The high visibility of public transport vehicles could stimulate a wider uptake by other market participants of this approach for internalising external costs in procurement decisions

Total procurement by public bodies accounts for some 16% of EU GDP. Total annual vehicle procurement by public authorities has been estimated to be in the order of 110 000 passenger cars, 110 000 light commercial vehicles, 35 000 lorries and 17 000 buses for the EU. The corresponding market shares are slightly below 1% for cars, around 6% for vans and lorries and around one third for buses.

A significant impact on the vehicle market can only be achieved by accumulating public procurements through harmonised criteria on EU level.

The objective of promoting clean and energy efficient vehicles cannot be sufficiently achieved by the Member States individually, but requires action at Community level in order to provide a critical mass of vehicles for cost-efficient production by European industry.

The inclusion of lifetime costs of energy consumption, CO<sub>2</sub> emissions, and pollutant emissions in the procurement award criteria, even when mandatory, does not preclude the inclusion of other award criteria deemed necessary by the public bodies.

The proposal therefore complies with the subsidiarity principle.

- **Proportionality principle**

This Directive introduces a harmonised methodology for clean and energy efficient vehicle procurement for public transport services. The application is left optional in a first phase and becomes mandatory only after a transition period, allowing for smooth introduction. The application of the methodology for clean and energy efficient vehicle procurement does not preclude the inclusion of other award criteria deemed necessary by the public bodies.

Member States retain the responsibility to bring into force the laws, regulations and administrative provisions necessary to comply with this Directive.

- **Choice of instruments**

Proposed instrument: a directive.

Other means would not be adequate for the following reason(s).

A mandatory approach on the implementation of a harmonised methodology for the internalisation of external costs is essential to ensure legal certainty for clean and energy efficient vehicle procurement and to create the necessary incentive for manufacturers to develop clean and energy efficient vehicles along the same conditions for a broader market.

#### **4. BUDGETARY IMPLICATION**

Limited costs will arise from reporting on the application of the Directive and from organising meetings of a Committee in case of a revision of the technical data in the Annex of this proposal.

#### **5. ADDITIONAL INFORMATION**

- **Review/revision/sunset clause**

The proposal includes a review clause with a comitology procedure.

- **Correlation table**

The Member States are required to communicate to the Commission the text of national provisions transposing the Directive as well as a correlation table between those provisions and this Directive.

- **Detailed explanation of the proposal**

Article 1 defines the objective of the Directive.

Article 2 requires the inclusion of the operational lifetime costs of energy consumption, CO<sub>2</sub> emissions, and pollutant emissions as award criteria in the procurement of road transport vehicles by the competent public authorities and by operators providing services under a contract with a public authority. Member States shall also ensure application of these criteria to all procurement of road transport vehicles for the provision of public passenger transport services under licence, permit or authorisation by the competent public authorities.

Article 3 defines the methodology for the calculation of operational lifetime costs of energy consumption, CO<sub>2</sub> emissions and pollutant emissions of road transport vehicles.

Article 4 foresees adaptation by a Committee of the data used for the calculation of lifetime costs of energy consumption, CO<sub>2</sub> emissions and pollutant emissions of vehicle operation.

Article 5 provides for assistance by a regulatory Committee with scrutiny by the European Parliament.

Article 6 creates an obligation for the Commission to report on the application of this Directive, to assess the effects of the Directive and to propose possible further actions as appropriate.

Articles 7, 8 and 9 are the normal provisions relating to the entry into force and transposition of the Directive.

Revised proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**on the promotion of clean and energy efficient road transport vehicles**

**(Text with EEA relevance)**

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission<sup>4</sup>,

Having regard to the opinion of the European Economic and Social Committee<sup>5</sup>,

Having regard to the opinion of the Committee of the Regions<sup>6</sup>,

Acting in accordance with the procedure laid down in Article 251 of the Treaty<sup>7</sup>,

Whereas:

- (1) Natural resources and their prudent and rational utilisation as referred to in Article 174(1) of the Treaty, include oil, which ranks first in the European energy consumption but is also a major source of pollutant emissions.
- (2) The Commission Communication entitled "A sustainable Europe for a Better World: a European Union strategy for Sustainable Development"<sup>8</sup>, presented to the Gothenburg European Council of 15 and 16 June 2001, identified greenhouse gas emissions and pollution caused by transport among the main obstacles to sustainable development.
- (3) Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme<sup>9</sup> acknowledges the need for specific measures to enhance energy efficiency and energy saving, the integration of climate change objectives into transport and energy policies as well as the need for specific measures in the transport sector to address energy use and greenhouse gas emissions.

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<sup>4</sup> OJ C , , p. .

<sup>5</sup> OJ C , , p. .

<sup>6</sup> OJ C , , p. .

<sup>7</sup> OJ C , , p. .

<sup>8</sup> COM(2001) 264.

<sup>9</sup> OJ L 242, 10.9.2002, p. 1.

- (4) The Commission Communication “An energy policy for Europe”<sup>10</sup> proposed an EU commitment to achieve at least a 20% reduction of greenhouse gases by 2020 compared to 1990. Binding targets for further improvement of energy efficiency by 20%, a level of 20% of renewable energy and a 10% biofuels share in the motor fuel market in the Community by 2020 have been proposed, i.a. to improve security of energy supply by diversifying the fuel mix.
- (5) The Commission Communication on an "Action Plan for Energy Efficiency: Realising the Potential"<sup>11</sup> announced that the Commission will continue its efforts to develop markets for cleaner, smarter, safer and energy-efficient vehicles through public procurement and awareness-raising.
- (6) The mid-term review of the Commission's 2001 Transport White Paper “Keep Europe moving – Sustainable mobility for our continent”<sup>12</sup> announced that the Community will stimulate environmentally friendly innovation in particular by successive Euro norms and by the promotion of clean vehicles on the basis of public procurement.
- (7) The Commission presented a comprehensive new strategy to enable the EU to reach its 120 g/km objective for CO<sub>2</sub> emissions from new passenger cars by 2012<sup>13</sup>. A legislative framework was proposed to ensure vehicle technology improvements. Complementary measures should promote the procurement of fuel-efficient vehicles.
- (8) The Green Paper on Urban Transport "Towards a new culture for urban mobility"<sup>14</sup> notes the support of stakeholders for promoting the market introduction of clean and energy efficient vehicles through green public procurement. It proposes that "a possible approach could be based on the internalisation of external costs by using lifetime costs for energy consumption, CO<sub>2</sub> emissions, and pollutant emissions linked to the operation of the vehicles to be procured as award criteria, in addition to the vehicle price. In addition, public procurement could give preference to new Euro standards. The earlier use of cleaner vehicles could then improve air quality in urban areas".
- (9) The CARS 21 High Level Group report of 12 December 2005 supported the Commission's initiative on the promotion of clean and energy-efficient vehicles, on condition that a technology-neutral and performance based approach is taken.
- (10) The High Level Group on competitiveness, energy and the environment, in its report of 27 February 2007, recommended that private and public procurement should take account of full lifetime costs with emphasis on energy efficiency. Member States and the Community should develop and publish public purchasing guidance on how to move beyond lowest price tendering of more sustainable intermediate goods in line with public procurement directives.

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<sup>10</sup> COM(2007) 1.

<sup>11</sup> COM(2006) 545.

<sup>12</sup> COM(2006) 314

<sup>13</sup> COM(2007) 19.

<sup>14</sup> COM(2007) 551.

- (11) Clean and energy efficient vehicles initially have a higher price than conventional ones. Creating sufficient demand for such vehicles should ensure that economies of scale can lead to cost reductions.
- (12) Procurement of vehicles for public transport services can make a significant impact on the market if harmonised criteria are applied at Community level.
- (13) The biggest impact on the market, together with the best cost/benefit result is obtained through mandatory inclusion of lifetime costs for energy consumption, CO<sub>2</sub> emissions, and pollutant emissions as award criteria in the procurement of vehicles for public transport services.
- (14) Including energy consumption, CO<sub>2</sub> emissions, and pollutant emissions in the award criteria does not impose higher total costs but rather anticipates lifetime costs in the procurement decision. Complementary to the Euro emissions standard legislation, which sets maximum emission limits, this approach monetises the actual pollutant emission and does not require any additional standard setting.
- (15) The ExternE study<sup>15</sup>, the Clean Air for Europe (CAFE<sup>16</sup>) programme of the Commission, and the HEATCO study<sup>17</sup> have provided information on the costs of CO<sub>2</sub>, NO<sub>x</sub>, non-methane hydrocarbons, and particulate matter emissions. Costs are taken at present value to keep the award procedure simple.
- (16) Mandatory application of criteria for the procurement of clean and energy efficient vehicles does not preclude the inclusion of other relevant award criteria. It also does not prevent the choice of retro-fitted vehicles upgraded for higher environmental performance.
- (17) This Directive should not prevent contracting authorities and contracting entities from giving preference to the latest Euro pollutant emission standards in the procurement of vehicles for public transport services before these standards become obligatory.
- (18) Power should be conferred on the Commission to adapt the technical data for the calculation of the operational life-costs of road transport vehicles established by this Directive. Since those measures are of general scope and are designed to amend non-essential elements of this Directive, they must be adopted in accordance with the regulatory procedure with scrutiny provided for in Article 5a of Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission<sup>18</sup>.
- (19) Since the objective of promoting clean and energy efficient vehicles cannot be sufficiently achieved by the Member States individually, but requires action at Community level in order to provide a critical mass of vehicles for cost-efficient developments by European industry, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the EC Treaty.

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<sup>15</sup> P. Bickel, R. Friedrich, ExternE, Methodology 2005 update, European Commission, Luxembourg, 2005.

<sup>16</sup> M. Holland, et al., CAFÉ 2005a, AEA Technology, Didcot, 2005.

<sup>17</sup> P. Bickel, et al., Stuttgart, 2006.

<sup>18</sup> OJ L 184, 17.7.1999, p. 23.

In accordance with the principle of proportionality as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives,

HAVE ADOPTED THIS DIRECTIVE:

*Article 1*  
*Subject matter*

This Directive requires the inclusion of operational lifetime costs of energy consumption, CO<sub>2</sub> emissions, and pollutant emissions as award criteria in the procurement of road transport vehicles, by contracting authorities or contracting entities within the meaning of Directives 2004/17/EC<sup>19</sup> and 2004/18/EC<sup>20</sup> or as criteria for the purchase of such vehicles by operators under contract, licence, permit or authorisation granted by public authorities, in order to promote clean and energy efficient vehicles.

*Article 2*  
*Procurement of clean and energy efficient vehicles*

1. Member States shall ensure that, no later than from the date referred to in Article 7(1), the contracting authorities or contracting entities within the meaning of Directives 2004/17/EC and 2004/18/EC use the methodology defined in Article 3, whenever they apply operational lifetime costs for energy consumption, CO<sub>2</sub> emissions, and pollutant emissions as award criteria for the procurement of road transport vehicles.
2. Member States shall ensure that, no later than from 1 January 2012, all public procurement of road transport vehicles by contracting authorities or contracting entities within the meaning of Directives 2004/17/EC and 2004/18/EC includes operational lifetime costs for energy consumption, CO<sub>2</sub> emissions, and pollutant emissions of road transport vehicles as award criteria, following the methodology defined in Article 3.
3. Member States shall ensure that, no later than from 1 January 2012, all purchase of road transport vehicles for the provision of public passenger transport services under licence, permit or authorisation granted by public authorities includes operational lifetime costs for energy consumption, CO<sub>2</sub> emissions, and pollutant emissions of road transport vehicles as criteria, following the methodology defined in Article 3.

*Article 3*  
*Energy and environmental costs as award criteria in the procurement of vehicles*

1. For the purposes of this Directive, operational lifetime costs for energy consumption, CO<sub>2</sub> emissions, and pollutant emissions linked to the operation of the vehicles under procurement shall be monetised and calculated following the methodology set out in points (a), (b) and (c).

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<sup>19</sup> OJ L 134, 30.4.2004, p. 1.

<sup>20</sup> OJ L 134, 30.4.2004, p. 114.

- (a) The lifetime cost of the energy consumption for the operation of a vehicle shall be calculated using the following methodology:
- the fuel consumption per kilometre of a vehicle according to paragraph 2 of his Article shall be converted into energy consumption per kilometre, using the conversion factors of Table 1 in the Annex for the energy content of the different fuels;
  - a single monetary value per unit of energy shall be used. This single value shall be the lower of the cost per unit of energy of petrol or diesel before tax when used as a transport fuel;
  - lifetime cost of the energy consumption for the operation of a vehicle shall be calculated by multiplying the lifetime mileage according to paragraph 3 by the energy consumption per kilometre according to the first indent of this paragraph, and by the cost per unit of energy according to the second indent of this paragraph.
- (b) The lifetime cost for the CO<sub>2</sub> emissions of the operation of a vehicle shall be calculated by multiplying the lifetime mileage according to paragraph 3 by the CO<sub>2</sub> emissions in kilograms per kilometre according to paragraph 2, and by the cost per kilogram taken from Table 2 in the Annex.
- (c) The lifetime cost for the pollutant emissions of the operation of a vehicle shall be calculated by adding up the lifetime costs for emissions of oxides of nitrogen, non-methane hydrocarbons, and particulate matter. The lifetime cost for each pollutant shall be calculated by multiplying the lifetime mileage according to paragraph 3 by the emissions in grams per kilometre according to paragraph 2, and by the respective cost per gram taken from Table 2 in the Annex.
2. Fuel consumption, CO<sub>2</sub> emissions, and pollutant emissions per kilometre for vehicle operation shall be based on standardised EU test procedures for the vehicles for which such test procedures are defined in EU type approval legislation. For vehicles not covered by standardised EU test procedures, comparability between different offers shall be ensured by using widely recognised test procedures, or the results of tests for the authority, or in the absence of these, information supplied by the manufacturer.
3. Total lifetime mileage of a vehicle shall be based on the technical specifications used in the procurement. In their absence, it shall be taken from Table 3 in the Annex.

*Article 4*  
*Adaptations to technical progress*

The adaptations to technical progress of the data for the calculation of the operational lifetime costs of road transport vehicles as set out in the Annex, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 5(2).

*Article 5*  
*Committee*

1. The Commission shall be assisted by a Committee.
2. Where reference is made to this paragraph, Articles 5a(1) to (4) and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

*Article 6*  
*Reporting and review*

1. Every two years, with effect from the date referred to in Article 8, the Commission shall prepare a report on the application of this Directive and on the actions taken by individual Member States to promote the procurement of clean and energy efficient road transport vehicles.
2. The report shall assess the effects of this Directive and the need for further action, and include proposals as appropriate.

*Article 7*  
*Transposition*

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 18 months from the date in Article 8 at the latest. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and this Directive. When Member States adopt those provisions, they shall contain a reference to this Directive, or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.
2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 8*  
*Entry into force*

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

*Article 9*  
*Addressees*

This Directive is addressed to the Member States.



Done at Brussels,

*For the European Parliament*  
*The President*

*For the Council*  
*The President*

## ANNEX

### **Data for the calculation of external lifetime costs of road transport vehicles for the purpose of this Directive**

Table 1: Energy content of motor fuels

<b>Fuel</b>	<b>Energy content</b>
Diesel	36 MJ/litre
Petrol	32 MJ/litre
Natural Gas	38 MJ/Nm <sup>3</sup>
LPG (liquefied petroleum gas)	24 MJ/litre
Ethanol	21 MJ/litre
Biodiesel	33 MJ/litre
Emulsion fuel	32 MJ/litre
Hydrogen	11 MJ/Nm <sup>3</sup>

Table 2: Cost for emissions in road transport (in 2007 prices):

<b>CO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>NMHC</b>	<b>Particulate Matter</b>
2 €cents/kg	0.44 €cents/g	0.1 €cents/g	8.7 €cents/g

Table 3: Lifetime mileage of road transport vehicles

<b>Vehicle category</b> (M and N categories as defined in Directive 2007/46/EC)	<b>Lifetime mileage</b>
Passenger cars (M1)	200 000 km
Light commercial vehicles (N1)	250 000 km
Heavy goods vehicles (N2, N3)	1 000 000 km
Buses (M2, M3)	800 000 km