Transport

Green Public procurement (GPP) Product Sheet

This Product Sheet forms part of the European Commission's GPP Training Toolkit, which can be downloaded from the GPP website http://ec.europa.eu/environment/gpp/toolkit_en.htm. Similar product sheets have been established for ten other product and service groups. More information on the reasons for selecting these criteria can be found in the detailed background report on the website.

For each product/service group two sets of criteria are presented:

- **Core GPP criteria** address the most significant environmental impacts, and are designed to be used with minimum additional verification effort or cost increases
- **Comprehensive GPP criteria** are intended for use by authorities who seek to purchase the best environmental products available on the market, and may require additional administrative effort or imply a certain cost increase as compared to other products fulfilling the same function.

1 Scope

Vehicle types acquired by public administrations vary greatly between vehicles for ordinary use (for example official vehicles, vehicles of inspection bodies, delivery vans or equipment for gardening), emergency vehicles (ambulances, fire engines, cars and police vans…), and special vehicles (sweeping trucks, garbage trucks, buses, etc.).

Criteria have been developed for the following three product groups:

- Passenger cars directly purchased or contracted under leasing/renting systems
- Public transport vehicles and services
- Waste collection trucks and services

The criteria and contracting procedures defined in this document may also be used as guidance to define specifications for the purchase of vehicle types and service contracts not explicitly covered here.

The proposed criteria should be read in conjunction with the recently adopted Directive on the promotion of clean and energy efficient road transport vehicles. This Directive obliges public authorities and operators under a public service contract to consider, when purchasing road transport vehicles, the operational life time energy and environmental impacts which shall include at least en ergy consumption, emissions of CO2 and emissions of pollutants, including NOx, NMHC, and particulate matter. This can be done either by including requirements for energy and environmental performance on each of the impacts considered (as minimum techni cal specifications or as award criteria) or by monetising these impacts in the purchasing decision according to a calculation methodol ogy provided for in the Directive. The recommended criteria included in this product sheet can provide guidance to public authorities who wish to implement the Directive using the first or second option, namely by including requirements for energy and environmental performance as technical specifications and/or award criteria.

Contracting authorities should also take into account the recently adopted Regulation of the European Parliament and of the Council setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO2 emis sions from light-duty vehicles (http://ec.europa.eu/environment/air/transport/co2/co2_home.htm)

1.1 Passenger cars and light-duty vehicles

For passenger cars and light-duty vehicles:

The **Core** set of criteria will focus on CO_2, and other pollutant emissions and noise emissions.

The **Comprehensive** criteria cover the other elements that can influence the consumption of fuel or other environmental impacts of vehicles. A specific section addresses the case of car rental or lease. Some environmental aspects relating to maintenance will need to be included in the tendering procedure for the leasing or renting of vehicles, as the maintenance tasks will be carried out by the contractor.

In both cases, in order to encourage improvement or to be able to compare offers and choose the most environmentally friendly, award criteria have been defined.

1.2 Public transport vehicles and services

Until some years ago, most public transport services were under the management of public authorities (mainly local and regional administrations) either directly by civil officers or through a public company in charge of the service. However, in recent years, competitive tendering for public bus services has considerably increased. Therefore criteria are provided for both the direct purchase of buses as well as for the procurement of public transport services.

For the procurement of buses, the **Core** criteria focus on the main environmental and health related aspects of buses, which are exhaust gas and noise emissions (by defining certain technical characteristics of the vehicles).

The **Comprehensive** criteria will consider other elements that will help reduce other environmental impacts.

For the procurement of bus services, the **Core** criteria also concentrate on exhaust and noise emissions and eco-driving training for bus drivers to reduce fuel consumption.

The **Comprehensive** criteria consider additional aspects, such as extra features to help reduce fuel consumption.

In this case most criteria will be defined as award criteria in order to be able to compare bus fleets and award more points to the more environmentally friendly.

1.3 Waste collection trucks and services

As for transport services, waste collection services are increasingly tendered out to private companies. Therefore criteria are provided for both the direct purchase of trucks as well as for the procurement of waste collection services.

The criteria are very similar to those for buses as trucks are also heavy-duty vehicles.

The only difference is that for trucks it is recommended to exclude the criteria on GSI (Gear Shift Indicator) and GWP (Global Warming Potential). The driving pattern of waste trucks is different to that of buses, with low speeds and frequent stops. As such GSIs are not really necessary. Criteria for air conditioning systems seem also less relevant as only the driver's cabin would be climatised and in several countries the service is carried out during the night or early morning when it is unnecessary to use the air conditioning. Therefore the criteria for these two elements are excluded for waste collection trucks.

2. Key environmental impacts

Impact	GPP Approach
CO^2 emissions	• Procurement of low emission vehicles • Procurement of vehicles capable of using renewable energy (biofuels, electricity from renewable energy sources, hydrogen from renewable energy sources) • Reduce fuel consumption through eco-driving, tyre pressure monitoring systems and gear shift indicators • Reduce fuel consumption by using low viscosity lubricants and low rolling resistance tyres • Procurement of vehicles with air-conditioning systems with low GWP (global warming potential) coolers • Procurement of environmentally friendly tyres and regenerated lubricant oils • Ensure the correct collection and management of used lubricant oils and tyres
Pollutant emissions including NOx, NMHC and particulate matters that can cause: - Local health (especially respiratory) problems - Damage to the environment, buildings and monuments	
Noise pollution	
Energy consumption	
Generation of waste lubricant oils and tyres	

3 Passenger cars and light-duty vehicles - GPP criteria

3.1 Passenger cars and light-duty vehicles - Core GPP criteria

Subject matter

Purchase or lease of low-emission vehicles.

Specifications

1. CO^2 emissions
The fleet average for new cars should not exceed 130 g CO^2/km
The fleet average for new vans should not exceed 175 g CO^2/km

Verification:
The bidder must provide the technical sheet of the vehicle where the CO_2 emissions are stated.

Award criteria

Additional points will be awarded for:

1. ***Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)***

Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.

2. ***Noise emission levels***
Noise emissions lower than those established by law.
Verification:
The bidder must present the technical sheet of the vehicle where this information is displayed, or the test results.

[1] *Values taken from www.greenlabelspurchase.net*

3.2 Passenger cars and light-duty vehicles - Comprehensive GPP criteria

Subject matter

Purchase or lease of low-emission vehicles.

Specifications

1. CO^2 emissions

The fleet average for new cars should not exceed 130 g CO^2/km.
The fleet average for new vans should not exceed 175 g CO^2/km.

Verification:
The bidder must provide the technical sheet of the vehicle where the CO_2 emissions are stated.

Exhaust gas emissions

2. Vehicles must comply with the EURO 5 standard.
Verification:
The bidder must present the technical sheet of the vehicle where this information is displayed.

Award criteria

Additional points will be awarded for:

1. Lower CO_2 emissions
Lower CO_2 emissions than those required in the specifications.
Verification:
The bidder must provide the technical sheet of the vehicle where the CO_2 emissions are stated.

2. Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)

Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.

3. Noise emission levels
Noise emissions lower than those established by law.
Verification:
The bidder must present the technical sheet of the vehicle where this information is displayed, or the test results.

[2] *Values taken from www.greenlabelspurchase.net*

Award criteria

Additional points will be awarded for:

4. *Gear shift indicators (GSI)*

The vehicle offered is equipped with a gear shift indicator.

Verification:

The bidder must present the technical sheet of the vehicle where this information is displayed.

5. *Tyre pressure monitoring systems (TPMS)*

The vehicle offered is equipped with tyre pressure monitoring systems (TPMS).

Verification:

The bidder must present the technical sheet of the vehicle where this information is displayed.

6. *Air conditioning gases*

The vehicle offered meets the following requirement: If the vehicle is fitted with an air-conditioning system designed to contain fluorinated greenhouse gases, the specific gas must have a global warming potential (GWP) ≤ 150 (related to CO_2 and a time horizon of 100 years).

[When a standardised test is defined] If the GWP is higher, the leakage rate from the system must not exceed 40g of fluorinated greenhouse gases per year for a single evaporator system, or 60g of fluorinated greenhouse gases per year for a dual evaporator system.

Verification:

The bidder must provide the name, formula and GWP of the refrigerating gas used in the air conditioning system. If a mixture of gases is used, the GWP will be calculated as follows:

$$GWP = \sum(\text{Substance X \% x GWPx}) + (\text{Substance Y \% x GWPy}) + \ldots (\text{Substance N \% x GWPn})$$

where % is the contribution by weight with a weight tolerance of +/- 1 %.

Information on GWP of gases can be found at: http://www.grida.no/climate/ipcc_tar/wg1/248.htm#tab67

[When a standardised test is defined] If GWP is > 150, leakage tests results should be provided.

[Additional award criteria for lease contracts]

7. *Lubricant oils*

Commitment to use low viscosity engine lubricant oils (LVL) or regenerated lubricant oils, with a minimum of 25% regenerated base oils, in vehicle maintenance. LVL are those corresponding to SAE grade number 0W30 or 5W30 or equivalent [3].

Verification:

The bidder must provide the technical sheet of the proposed lubricants and a signed declaration of commitment for the duration of the contract to use these products.

8. *Vehicle tyres*

Commitment to equip the vehicles with tyres with noise emission levels below the maximum established by law guaranteeing high performance and security levels.

Verification:

The bidder must provide a list of the tyres that will be used in maintenance tasks, the technical sheet or test results of the tyres where the noise emissions are displayed, and a signed declaration of commitment for the duration of the contract to use these products.

[3] *Taken from www.greenlabelspurchase.net*

9. Vehicle tyres

Commitment to use low rolling resistance tyres. The rolling resistance (for both new and retreaded tyres), expressed as a percentage of the wheel load must comply with the following limit values according to ISO 8767 or equivalent:

Tyre load limit	Rolling resistance
< 80	1.25%
80 – 90	1.15%
> 90	1.05%

Verification:

The bidder must provide a list of the tyres that will be used in maintenance tasks, the test results (according to ISO 8767 or equivalent) of the tyres to check compliance, and a signed declaration of commitment for the duration of the contract to use these products.

Tyres carrying the Nordic Swan or Blue Angel ecolabel will be deemed to comply.

10. Vehicle tyres

Commitment to use tyres that do not contain oils that are subject to labelling in accordance with Directive 67/548/EEC in the tread rubber.

Verification:

The bidder must provide a list of the tyres that will be used in maintenance tasks, the test results of the tyres, and a signed declaration of commitment for the duration of the contract to use these products.

Test records must show that the total PCA content of the tread oil measured according to IP 346 does not exceed 3%. The quantity of PCAs in oils in the tread rubber (PCA/kg tread rubber) shall be determined according to IP 391 along with ISO 1407 and ISO 4645 or ISO TC45/SC3N or equivalent. The level must not exceed 15% by weight. ISO 21461:200x may also be used, in which case the limit is 0.35% HBay. Other equivalent tests will also be accepted.

Tyres carrying a type I ecolabel fulfilling the selected criteria will be deemed to comply.

Contract performance clauses

The contractor must selectively collect used lubricant oils and tyres and have a contract with one or several authorised waste managers for the correct treatment of these waste fractions.

3.3 Passenger cars and light-duty vehicles - Explanatory notes

Explanatory notes

- Noise emission levels: The levels defined by law for vehicle noise emissions can be found in Annex I.
- Tyre noise emission levels: The levels defined by law for tyre emissions can be found in Annex II.
- Award criteria: Contracting authorities will have to indicate in the contract notice and tender documents how many additional points will be awarded for each award criterion. Environmental award criteria should, altogether, account for at least 10 to 15 % of the total points available.
  Where the award criterion is formulated in terms of "better performance as compared to the minimum requirements included in the technical specifications", points will be awarded in proportion to the improved performance.
- Leasing clauses: The additional leasing clauses have all been defined as award criteria although they could also be specified as contract performance clauses if the availability and use of such products is frequent in the relevant Member State.
- Procurement process: If the tender is not divided into lots, points in the award phase should be given according to the percentage of vehicles that comply with the award criteria.

4 Public transport vehicles - GPP criteria

4.1 Bus procurement - Core GPP criteria

Subject matter

Purchase or lease of low-emission buses.

Specifications

Exhaust gas emissions

1. Vehicle engines must be certified as meeting the EURO V standard for emissions, according to EC Directive 2005/55/EC.
   Verification:
   The bidder must provide the technical documents of the vehicle where it states that it meets the standard.

Award criteria

Additional points will be awarded for:

1. Exhaust gas emissions
The vehicle is certified as meeting the Euro VI standard (where available) for emissions,
Verification:
The bidder must provide the technical documents of the vehicle where it states that buses meet that standard.

2. Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)

Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.

3. Noise emission levels
Noise emissions lower than those established by law.
Verification:
The bidder must present the technical sheet of the vehicle where this information is displayed, or the test results.

4.2 Bus procurement - Comprehensive GPP criteria

Subject matter

Purchase or lease of low-emission buses.

Specifications

Exhaust gas emissions

1. Vehicle engines must be certified as meeting the EURO V standard for emissions, according to EC Directive 2005/55/EC.
   Verification:
   The bidder must provide the technical documents of the vehicle where it states that it meets the standard.

Other elements

2. Vehicles must be fitted with gear shift indicators (GSI).
   Verification:
   The bidder must provide a declaration that the vehicles are equipped with GSI.

3. Vehicles must be equipped with tyre pressure monitoring systems (TPMS).
   Verification:
   The bidder must present the technical sheet of the vehicle where this information is displayed.

4. Vehicles' exhaust pipes must not be located on the same side as the passenger door.
   Verification:
   The bidder must provide the technical sheet of the vehicle.

5. The refrigerants used must have a global warming potential (GWP), related to CO_2 and a time horizon of 100 years, of < 2500[4].
   Verification:
   The bidder must provide the name, formula and GWP of the refrigerating gas used in the air conditioning system. If a mixture of gases is used, the GWP will be calculated as follows:

   GWP= ∑(Substance X % x GWPx) + (Substance Y % x GWPy) + … (Substance N % x GWPn)

   where % is the contribution by weight with a weight tolerance of +/- 1 %.
   Information on the GWP of gases can be found at: http://www.grida.no/climate/ipcc_tar/wg1/248.htm#tab67
   Vehicles carrying a type I ecolabel fulfilling the above criterion will be deemed to comply.

[4] *Extracted from the Blue Angel ecolabel for low-pollutant municipal vehicles and buses RAL-UZ 59.*

Award criteria

Additional points will be awarded for:

1. ***Exhaust gas emissions***
   The vehicle is certified as meeting the Euro VI standard for emissions, where applicable.
   Verification:
   The bidder must provide the technical documents of the vehicle where it states that it meets the standard.
2. ***Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)***
   Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.

3. ***Noise emission levels***
   Noise emissions lower than those established by law.
   Verification:
   The bidder must present the technical sheet of the vehicle where this information is displayed, or the test results.

4.3 Bus procurement - Explanatory notes

Explanatory notes

- Exhaust gas emissions: In December 2007, the Commission has published a proposal for EURO VI standards. The new emission limits, comparable in stringency to the US 2010 standards, would become effective from 2013/2014 (more information at: http://ec.europa.eu/environment/air/transport/road.htm). The EURO V standards are effective for new type approvals as from October 2008 and will be applicable for type approvals of existing vehicles as from October 2009. When new EURO standards are approved, reference should be made to them.
  In order to have more realistic emission values, purchasers could also demand that bidders present the vehicle's emissions according to the Artemis test cycle - A test cycle based on real driving conditions across Europe, which shows more accurate pollutant emissions. Values according to this test would be higher than the EURO standards and contracting authorities would not be able to set the limit values based on this test cycle as minimum technical specifications as this test cycle is not compulsory, and very few vehicles currently have test data. However, contracting authorities can use such limit values as award criteria and compare offers on the basis of their compliance with those limit values and award more points to those with lower emissions according to the Artemis test cycle.
  Award criteria: Contracting authorities will have to indicate in the contract notice and tender documents how many additional points will be awarded for each award criterion. Environmental award criteria should, altogether, account for at least 10 to 15 % of the total points available.
  Where the award criterion is formulated in terms of "better performance as compared to the minimum requirements included in the technical specifications", points will be awarded in proportion to the improved performance.

5. Public transport services - GPP criteria

5.1 Public transport services - Core GPP criteria

Subject matter

Contract for the provision of bus services in an environmentally friendly manner.

Specifications

Exhaust gas emissions

1. All vehicles used in carrying out the service must have engines meeting EURO IV standards, according to EC Directive 2005/55/EC. Where vehicles are not certified as EURO IV, but technical after-treatment has achieved the same standard, this should be documented in the tender application.
   Verification:
   The bidder must provide the technical sheets of the vehicles where emission standards are defined. For those vehicles where technical upgrade has achieved EURO IV standard the measures must be documented and included in the tender application, and this must be approved by a credible third party.

Award criteria

Additional points will be awarded for:

1. ***Exhaust gas emissions***
   Proportion of vehicles to be used in carrying out the service complying with stricter EURO standards (EURO V or VI where applicable).
   Verification:
   The bidder must provide a list of all the vehicles to be used in the service with their EURO standard and their respective technical sheets where emission standards are defined.
2. ***Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)***
   Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.
3. ***Noise emissions***
   Average noise level of the vehicles to be used in carrying out the service lower than the noise levels established by law.
   Verification:
   The bidder must provide a list of all the vehicles that will be used to carry out the service with the noise levels for each one and the average noise emissions. After awarding the contract, the contracting authority reserves the right to ask for the appropriate documents to check the information.

Contract performance clauses

1. New vehicles

All vehicles newly purchased after the award of the contract and used in carrying out the service must comply with the Euro VI standard and be fitted with GSI (Gear shift indicator) and TPMS (Tyre pressure monitoring system). The vehicle's exhaust pipe must not be located on the same side as the passenger door. The contractor will present the authority with the relevant information to demonstrate that the clause is fulfilled.

2. Fuel consumption and CO_2 emissions data

The contractor must provide at the end of each year a report stating the amount of fuel consumed in carrying out the service (petrol, diesel, biofuel, CNG, electricity...) and the CO_2 emissions derived from that consumption.

5.2 Public transport services - Comprehensive GPP criteria

Subject matter

Contract for the provision of bus services in an environmentally friendly manner.

Specifications

Exhaust gas emissions

1. All vehicles used in carrying out the service must have engines meeting EURO IV standards, according to EC Directive 2005/55/EC. Where vehicles are not certified as EURO IV, but technical after-treatment has achieved the same standard, this should be documented in the tender application.
   Verification:
   The bidder must present the technical sheets of the vehicles where emission standards are defined. For those vehicles where technical upgrade has achieved EURO IV standard the measures must be documented and included in the tender application, and this must be approved by a credible third party.

Award criteria

Additional points will be awarded for:

1. ***Exhaust gas emissions***
   Proportion of vehicles to be used in carrying out the service complying with stricter EURO standards (EURO V or VI where applicable).
   Verification:
   The bidder must provide a list of all the vehicles to be used in the service with their EURO standard and their respective technical sheets where emission standards are defined.
2. ***Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)***
   Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed
3. ***Noise emissions***
   Average noise level of the vehicles to be used in carrying out the service lower than the noise levels established by law.
   Verification:
   The bidder must provide a list of all the buses that will be used to carry out the service with the noise levels for each one and the average noise emissions. After awarding the contract, the contracting authority reserves the right to ask for the appropriate documents to check the information.
4. ***Gear shift indicator***
   Percentage of vehicles to be used in carrying out the service fitted with gear shift indicators (GSI) to monitor fuel usage.
   Verification:
   The bidder must provide the technical documents of the vehicle where this is stated.
5. ***Tyre pressure monitoring systems***
   Percentage of vehicles to be used in carrying out the service fitted with tyre pressure monitoring systems (TPMS).
   Verification:
   The bidder must provide the technical documents of the vehicle where this is stated.

6. *Global warming potential*

Percentage of vehicles to be used in carrying out the service whose air conditioning refrigerant have a low global warming potential (GWP). This condition shall be considered fulfilled if the GWP, related to CO_2 and a time horizon of 100 years, is < 2500.

Verification:

The bidder must provide for each vehicle, the name, formula and GWP of the refrigerating gas used in the air conditioning system. If a mixture of gases is used, the GWP will be calculated as follows:

GWP= ∑(Substance X % x GWPx) + (Substance Y % x GWPy) + … (Substance N % x GWPn)

where % is the contribution by weight with a weight tolerance of +/- 1 %.

Information on GWP of gases can be found at: http://www.grida.no/climate/ipcc_tar/wg1/248.htm#tab67

Vehicles carrying a type I ecolabel fulfilling the above criterion will be deemed to comply.

Contract performance clauses

1. Driving style

All drivers involved in carrying out the service must be trained in a recognised institution on environmentally-conscious driving on a regular basis to increase fuel efficiency. The contractor will provide a list of the drivers and their certificates of eco-driving training.

2. New vehicles

All vehicles newly purchased after the award of the contract and used in carrying out the service must comply with the Euro VI standard (where applicable) and be fitted with GSI (Gear shift indicator) and TPMS (Tyre pressure monitoring system). The vehicle's exhaust pipe must not be located on the same side as the passenger door. The contractor will present the authority with the relevant information to demonstrate that the clause is fulfilled.

3. Fuel consumption and CO_2 emissions data

The contractor must provide at the end of each year a report stating the amount of fuel consumed in carrying out the service (petrol, diesel, biofuels, CNG, electricity...) and the CO_2 emissions derived from that consumption.

4. Lubricant oils

The contractor must use low viscosity engine lubricant oils (LVL) in vehicle maintenance or use regenerated lubricant oils, with a minimum of 25% regenerated base oils. LVL are those corresponding to SAE grade number 0W30 or 5W30 or equivalent[5].

The contractor will present every year the amount of lubricant oil used in the vehicles' maintenance and their viscosity grade number.

5. Tyres

- The contractor must use low rolling resistance tyres in vehicle maintenance. The rolling resistance, expressed as a percentage of the wheel load must comply with the following limit values: 0.60% for free-rolling wheels and 0.70% for driven wheels and wheels with other special functions according to ISO 8767 or equivalent.
  Before signing the contract the contractor must present a list of the tyres that will be used in maintenance tasks together with the relevant test results (according to ISO 8767 or equivalent). The contractor must use tyres that do not contain oils that are subject to labelling in accordance with Directive 67/548/EEC in the tread rubber. Tyres carrying a type I ecolabel fulfilling the above criteria will be presumed to comply
  Before signing the contract the contractor must present a list of the tyres that will be used in maintenance tasks together with the relevant test results.
  Test records must show that total PCA content of the tread oil measured according to IP 346 does not exceed 3%. The quantity of PCAs in oils in the tread rubber (PCA/kg tread rubber) shall be determined according to IP 391 along with ISO 1407 and ISO 4645 or ISO TC45/SC3N or equivalent. The level must not exceed 15% by weight. ISO 21461:200x may also be used, in which case the limit is 0.35% HBay. Other equivalent tests will also be accepted. Tyres carrying a type I ecolabel fulfilling the above criteria will be presumed to comply.

[5] *Taken from www.greenlabelspurchase.net*

5.3 Public transport services - Explanatory notes

Explanatory notes

- Exhaust gas emissions: Another possible solution for competitive tendering is to include limit (or average) values for Particulate Matter (PM) and Nitrogen Oxide (NO_x) for the entire fleet used in the performance of the contract, which become stricter over time. The contractor would have to document the emissions regularly, based on the technical standards of the buses and the kilometres driven.
  In December 2007, the Commission has published a proposal for EURO VI standards. The new emission limits, comparable in stringency to the US 2010 standards, would become effective from 2013/2014 (more information at: http://ec.europa.eu/environment/air/transport/road.htm). The EURO V standards are effective for new type approvals as from October 2008 and will be applicable for type approvals of existing vehicles as from October 2009. When new EURO standards are approved, reference should be made to them.
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- Award criteria: Contracting authorities will have to indicate in the contract notice and tender documents how many additional points will be awarded for each award criterion. Environmental award criteria should, altogether, account for at least 10 to 15 % of the total points available.
  Where the award criterion is formulated in terms of "better performance as compared to the minimum requirements included in the technical specifications", points will be awarded in proportion to the improved performance.

6 Waste collection trucks - GPP criteria

6.1 Waste collection trucks - Core GPP criteria

Subject matter

Purchase or lease of low-emission waste collection trucks.

Specifications

Exhaust gas emissions

1. Vehicle engines must be certified as meeting the EURO V standard for emissions, according to EC Directive 2005/55/EC.
   Verification:
   The bidder must provide the technical documents of the vehicle where it states that it meets the standard.

Award criteria

Additional points will be awarded for:

1. Exhaust gas emissions
The vehicle is certified as meeting the Euro VI standard for emissions (where applicable).
Verification:
The bidder must provide the technical documents of the vehicle where it states that it meets the standard.

2. Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)
Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.

3. Noise emission levels
Noise emissions are below 102 dB (A) measured according to Directive 2000/14/EC.
Verification:
The bidder must present the technical sheet of the vehicle where this information is displayed, or the test results.

6.2 Waste collection trucks - Comprehensive GPP criteria

Subject matter

Purchase or lease of low-emission waste collection trucks.

Specifications

Exhaust gas emissions

1. Vehicle engines must be certified as meeting the EURO V standard for emissions, according to EC Directive 2005/55/EC.
   Verification:
   The bidder must provide the technical documents of the vehicle where it states that it meets the standard.

Award criteria

Additional points will be awarded for:

1. ***Exhaust gas emissions***
   The vehicle is certified as meeting the Euro VI standard for emissions, where applicable.
   Verification:
   The bidder must provide the technical documents of the vehicle where it states that it meets the standard.
2. ***Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)***
   Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.

3. ***Noise emission levels***
   Noise emissions are below 102 dB (A) measured according to Directive 2000/14/EC.
   Verification:
   The bidder must present the technical sheet of the vehicle where this information is displayed, or the test results.

4. ***Tyre pressure monitoring systems***
   The vehicle is equipped with TPMS (Tyre pressure monitoring system).
   Verification:
   The bidder must present the technical sheet of the vehicle where this information is displayed.

Award criteria

5. Pollutant emissions

The vehicle's emissions from the separate engines for auxiliary units meet the exhaust emission limits below according to Directive 97/68/EEC, level IIIa (constant rpm)[6]:

Engine power P (kW)	CO (g/kWh)	HC + NOx (g/kWh)	PM (g/kWh)
H: 130kW ≤ P ≤ 560kW	3.5	4	0.2
I: 75kW ≤ P < 130kW	5	4	0.3
J: 37kW ≤ P < 75kW	5	4.7	0.4
K: 19kW ≤ P < 37kW	5.5	7.5	0.6

Verification:

The bidder must provide either a test certificate of the official exhaust-gas testing agency, a certificate of the manufacturer, or a test certificate of another testing institute.

Vehicles carrying a type I ecolabel fulfilling the above criterion will be deemed to comply.

6.3 Waste collection trucks - Explanatory notes

Explanatory notes

- Exhaust gas emissions: In December 2007, the Commission has published a proposal for EURO VI standards. The new emission limits, comparable in stringency to the US 2010 standards, would become effective from 2013/2014 (more information at: http://ec.europa.eu/environment/air/transport/road.htm). The EURO V standards are effective for new type approvals as from October 2008 and will be applicable for type approvals of existing vehicles as from October 2009. When new EURO standards are approved, reference should be made to them. When new EURO standards are approved, reference should be made to them.
  In order to have more realistic emission values, purchasers could also demand that bidders present the vehicle's emissions according to the Artemis test cycle - A test cycle based on real driving conditions across Europe, which shows more accurate pollutant emissions. Values according to this test would be higher than the EURO standards and contracting authorities would not be able to set limit values as minimum technical specifications, as this test cycle is not compulsory, and very few vehicles currently have test data. However, contracting authorities can use the limit values as award criteria and compare offers against their compliance with those limit values and award more points to those vehicles with lower emissions according to the Artemis test cycle.

- Award criteria: Contracting authorities will have to indicate in the contract notice and tender documents how many additional points will be awarded for each award criterion. Environmental award criteria should, altogether, account for at least 10 to 15 % of the total points available.
  Where the award criterion is formulated in terms of "better performance as compared to the minimum requirements included in the technical

7. Waste collection services - GPP criteria

7.1 Waste collection services - Core GPP criteria

Subject matter

Contract for the provision of waste collection services in an environmentally friendly manner.

Specifications

Exhaust gas emissions

1. All vehicles used in carrying out the service must have engines meeting EURO IV standards, according to EC Directive 2005/55/EC. Where vehicles are not certified as EURO IV, but technical after-treatment has achieved the same standard, this should be documented in the tender application.
   Verification:
   The bidder must present the technical sheets of the vehicles where emission standards are defined. For those vehicles where technical upgrade has achieved EURO IV standard the measures must be documented and included in the tender application, and this must be approved by a credible third party.

Award criteria

Additional points will be awarded for:

1. ***Exhaust gas emissions***
   Proportion of vehicles to be used in carrying out the service complying with stricter EURO standards (EURO V or VI where applicable).
   Verification:
   The bidder must present a list of all the vehicles to be used in the service with their EURO standard and their respective technical sheets where emission standards are defined.
2. ***Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energouy sources)***
   Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.

3. ***Noise emissions***
   Average noise level of the vehicles to be used in carrying out the service below 102 dB (A) measured according to Directive 2000/14/EC.
   Verification:
   The bidder must provide a list of vehicles that will be used to carry out the service with the noise levels for each one and the average noise emissions. After awarding the contract, the contracting authority reserves the right to ask for the appropriate documents to check the information.

Contract performance clauses

1. Driving style

All drivers involved in carrying out the service must be trained in a recognised institution on environmentally-conscious driving on a regular basis to increase fuel efficiency. The contractor will provide a list of the drivers and their certificates of eco-driving training.

Contract performance clauses

2. New vehicles

All vehicles newly purchased after the award of the contract and used in carrying out the service must comply with the Euro VI standard and be fitted with TPMS (Tyre pressure monitoring system). The vehicle's exhaust pipe must not be located on the same side as the passenger door. The contractor will present the authority with the relevant information to demonstrate that the clause is fulfilled.

3. Fuel consumption and CO_2 emissions data

The contractor must provide at the end of each year a report stating the amount of fuel consumed in carrying out the service (petrol, diesel, biofuels, CNG, electricity...) and the CO_2 emissions derived from that consumption.

7.2 Waste collection services - Comprehensive GPP criteria

Subject matter

Contract for the provision of waste collection services in an environmentally friendly manner.

Specifications

Exhaust gas emissions

1. All vehicles used in carrying out the service must have engines meeting EURO IV standards, according to EC Directive 2005/55/EC. Where vehicles are not certified as EURO IV, but technical after-treatment has achieved the same standard, this should be documented in the tender application.
   Verification:
   The bidder must present the technical sheets of the vehicles where emission standards are defined. For those vehicles where technical upgrade has achieved EURO IV standard the measures must be documented and included in the tender application, and this must be approved by a credible third party.

Award criteria

Additional points will be awarded for:

1. Exhaust gas emissions
Proportion of vehicles to be used in carrying out the service complying with stricter EURO standards (EURO V or VI where applicable).
Verification:
The bidder must present a list of all the vehicles to be used in the service with their EURO standard and their respective technical sheets where emission standards are defined.

2. Capability to use renewable energy (biofuels, renewable electricity or hydrogen from renewable energy sources)
   Verification: The bidder must provide the technical sheet of the vehicle where these technical or fuel technology specifications are displayed.

3. Noise emissions
Average noise level of the vehicles to be used in carrying out the service below 102 dB (A) measured according to Directive 2000/14/EC.
Verification:
The bidder must provide a list of vehicles that will be used to carry out the service with the noise levels for each one and the average noise emissions. After awarding the contract, the contracting authority reserves the right to ask for the appropriate documents to check the information.

4. Tyre pressure monitoring systems
Percentage of vehicles to be used in carrying out the service fitted with TPMS (Tyre pressure monitoring system).
Verification:
The bidder must provide the technical documents of the vehicle where this is stated.

5. Pollutant emissions

Percentage of vehicles to be used in carrying out the service that meet the pollutant emissions of the separate engines according to Directive 97/68/EEC, level IIIa (constant rpm)[7] :

Engine power P (kW)	CO (g/kWh)	HC + NOx (g/kWh)	PM (g/kWh)
H: 130kW ≤ P ≤ 560kW	3.5	4	0.2
I: 75kW ≤ P < 130kW	5	4	0.3
J: 37kW ≤ P < 75kW	5	4.7	0.4
K: 19kW ≤ P < 37kW	5.5	7.5	0.6

Verification:

The bidder must provide a list of all the vehicles to be used in carrying out the service identifying those that comply with the criteria, attaching also the technical sheets or the test certificate of the official exhaust-gas testing agency, a certificate of the manufacturer, or a test certificate of another testing institute.
Vehicles carrying a type I ecolabel fulfilling the above criterion will be deemed to comply.

Contract performance clauses

1. Driving style

All drivers involved in carrying out the service must be trained in a recognised institution on environmentally-conscious driving on a regular basis to increase fuel efficiency. The contractor will provide a list of the drivers and their certificates of eco-driving training.

2. New vehicles

All vehicles newly purchased after the award of the contract and used in carrying out the service must comply with the Euro VI standard, where applicable, and be fitted with TPMS. The vehicle's exhaust pipe must not be located on the same side as the passenger door. The contractor will present the authority with the relevant information to demonstrate that the clause is fulfilled.

3. Fuel consumption and CO_2 emissions data

The contractor must provide at the end of each year a report stating the amount of fuel consumed in carrying out the service (petrol, diesel, biofuels, CNG, electricity...) and the CO_2 emissions derived from that consumption.

4. Lubricant oils

The contractor must use low viscosity engine lubricant oils (LVL) in vehicle maintenance or use regenerated lubricant oils, with a minimum of 25% regenerated base oils. LVL are those corresponding to SAE grade number 0W30 or 5W30 or equivalent[8].
The contractor will present every year the amount of lubricant oil used in the vehicles' maintenance and their viscosity grade number.

[7] *Extracted from the Blue Angel ecolabel for low-pollutant municipal vehicles and buses RAL-UZ 59.*

Contract performance clauses

5. Tyres

- The contractor must use low rolling resistance tyres in vehicle maintenance. The rolling resistance, expressed as a percentage of the wheel load must comply with the following limit values: 0.60% for free-rolling wheels and 0.70% for driven wheels and wheels with other special functions according to ISO 8767 or equivalent.
  Before signing the contract the contractor must present a list of the tyres that will be used in maintenance tasks together with the relevant test results (according to ISO 8767 or equivalent). Tyres carrying a type I ecolabel fulfilling the above criteria will be presumed to comply.
- The contractor must use tyres that do not contain oils that are subject to labelling in accordance with Directive 67/548/EEC in the tread rubber.
  Before signing the contract the contractor must present a list of the tyres that will be used in maintenance tasks together with the relevant test results for the tyres.
  Test records must show that total PCA content of the tread oil measured according to IP 346 does not exceed 3%. The quantity of PCAs in oils in the tread rubber (PCA/kg tread rubber) shall be determined according to IP 391 along with ISO 1407 and ISO 4645 or ISO TC45/SC3N or equivalent. The level must not exceed 15% by weight. ISO 21461:200x may also be used, in which case the limit is 0.35% HBay. Other equivalent test will also be accepted. Tyres carrying a type I ecolabel fulfilling the above criteria will be presumed to comply

7.3 Waste collection services - Explanatory notes

Explanatory notes

- Exhaust gas emissions: In December 2007, the Commission has published a proposal for EURO VI standards. The new emission limits, comparable in stringency to the US 2010 standards, would become effective from 2013/2014 (more information at: http://ec.europa.eu/environment/air/transport/road.htm). The EURO V standards are effective for new type approvals as from October 2008 and will be applicable for type approvals of existing vehicles as from October 2009. When new EURO standards are approved, reference should be made to them. Another possible solution for competitive tendering is to include limit (or average) values for Particulate Matter (PM) and Nitrogen Oxide (NO_x) for the entire fleet in the contract, which become stricter over time. The contractor would have to document the emissions regularly, based on the technical standards of the vehicles and the kilometres driven.

- Award criteria: Contracting authorities will have to indicate in the contract notice and tender documents how many additional points will be awarded for each award criterion. Environmental award criteria should, altogether, account for at least 10 to 15 % of the total points available.
  Where the award criterion is formulated in terms of "better performance as compared to the minimum requirements included in the technical specifications", points will be awarded in proportion to the improved performance.

[8] *Taken from www.greenlabelspurchase.net*

8 Cost considerations

When considering the life-cycle cost (LCC) of vehicles, operating and disposal costs must be considered in addition to purchase price. The following cost elements must be taken into account within the scope of the LCC: **investment costs, annual motor vehicle taxes** (although in some countries, publicly purchased vehicles are exempt from such taxes); **fuel costs** based on the costs for the fuel consumed over the course of the service life of the vehicle; **maintenance costs** made up of material costs for engine oil, tyres, spare parts and the corresponding labour costs; **insurance costs**; and **end of life** costs or revenues (depending on whether the vehicle is disposed of or sold).

For passenger cars, according to the results of the study "Costs and Benefits of Green Public Procurement in Europe"[9] (where life-cycle costs are considered for green and non-green products in four countries: Sweden, Germany, Spain and Czech Republic), the procurement of greener vehicle versions[10] in no case leads to substantially higher costs, but rather to slightly lower costs, although this depends mainly on the tax policy of the Member States.

According to the study, environmentally friendly cars or fuel are not supported via tax reduction in Spain or in the Czech Republic. Nevertheless the life-cycle costs of the defined green versions (diesel driven cars equipped with particulate filters) are only slightly more expensive than the non-green versions. Additional costs are below 1%. In Sweden as well as in Germany bio-ethanol and CNG (Compressed Natural Gas) are subsidised through tax reductions, resulting in considerably lower costs for the green versions compared to the non-green versions.

Regarding the procurement of buses, according to the same study, greener bus[11] costs depend on the tax system and subsidies. In Spain as well as in the Czech Republic environmentally friendly buses of all types are slightly more expensive than the non-green versions. Additional costs are below 1%, which is not considered to be significant. In the case of Germany and Sweden this result is also valid for product type 3 (minibuses). Especially in Germany CNG is subsidised through tax reductions, resulting in considerably lower operating costs for the green versions compared to the non-green versions. Thus the higher costs for investment and maintenance could be compensated. In Sweden the situation is different: although bio-ethanol is subsidised and motor vehicle tax for the green version is considerably lower compared to the non-green version, additional purchase and maintenance costs for the greener version are not compensated through these lower fuel and taxation costs, resulting in higher total costs of around 3% compared to the non-green version.

In Italy, the favourable taxation for CNG fuel, in comparison to diesel fuel, makes CNG application favourable from an economic point of view.

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[9] Costs and Benefits of Green Public Procurement in Europe. Final Report. Germany. 2007.

[10] For the study, three types of vehicles were selected: compact and subcompact cars, lower middle-sized passenger cars and light-duty vehicles (LDV) of up to 2.8 tonnes. In order to define green and non-green vehicles the following assumptions were made: a conventional EURO 4 diesel passenger car was selected as the non-green version. Bio-ethanol in Sweden and Natural gas in Germany were used as examples for the green version in these two member states. As the green version in Spain and the Czech Republic (and as the second green version in Germany) EURO 4 Diesel passenger cars equipped with a particulate filter were chosen.

[11] Buses were classified into three groups according to their capacity: standard buses [up to 80 passengers], articulated buses [>80 passengers] and minibuses [LDV with 8 seats]. In this case, a conventional EURO IV bus was selected as the non-green version. As greener versions the following conditions were considered: bio-ethanol in Sweden and CNG in Germany; and EEV buses with SCR technology. In Spain and the Czech Republic, since there are no minibuses using alternative fuels, the green version for them was a minibus with enhanced fuel consumption and a particulate filter.

For waste collection trucks no data could be identified.

In order to stimulate the purchase of vehicles which are less pollutant and use less fuel, the Commission has recently adopted a proposal aimed at establishing a methodology to include the external costs caused by pollution and fuel consumption in the calculation of the price of the vehicle. The methodology would be mandatory but its use would, in a first transitional period, be optional, becoming only mandatory as from 2012 (see the revised proposal for a Directive on the promotion of clean and energy efficient road transport vehicles COM(2007) 817 final)[12].

[12] *http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0817:FIN:EN:PDF*

9 Relevant EU legislation and information sources

- Communication from the Commission to the Council and the European Parliament. Results of the review of the Community Strategy to reduce CO2 emissions from passenger cars and light-commercial vehicles {SEC(2007) 60} {SEC(2007) 61} COM/2007/0019 final: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007DC0019:EN:HTML

- Commission staff working document. Accompanying document to the Communication from the Commission to the Council and the European Parliament. Results of the review of the Community Strategy to reduce CO2 emissions from passenger cars and light-commercial vehicles. Impact Assessment {COM(2007) 19 final}{SEC(2007) 61}: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007SC0061:EN:NOT

- Communication from the Commission to the Council and the European Parliament - A community strategy to reduce CO2 emissions from passenger cars and improve fuel economy. COM/95/0689 Final: http://eur-lex.europa.eu/Notice.do?val=318983:cs&lang=en&list=451301:cs,419933:cs,236967:cs,335276:cs,226552:cs,226551:cs,322490:cs,318983:cs,318972:cs,321130:cs,&pos=8&page=1&nbl=24&pgs=10&hwords=

- Communication from the Commission to the Council and the European Parliament Thematic Strategy on air pollution (COM(2005) 446): http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52005DC0446:EN:HTML

- Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31996L0062:EN:HTML) and daughter Directives:

  - 1999/30/EC: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0030:EN:HTML

  - 2000/69/EC: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0069:EN:HTML and

  - 2002/3/EC: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002L0003:EN:HTML

- Directive 70/157/EEC on the approximation of the laws of the Member States relating to the permissible sound level and the exhaust system of motor vehicles: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31970L0157:EN:HTML

- Council Directive 92/97/EEC of 10 November 1992 amending Directive 70/157/EEC on the approximation of the laws of the Member States relating to the permissible sound level and the exhaust system of motor vehicles: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0097:EN:HTML

- Directive 2000/14/EC of the European Parliament and the Council of 8 May 2000 on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0014:EN:HTML

- Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to emissions from air conditioning systems in motor vehicles and amending Council Directive 70/156/EEC: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:161:0012:01:EN:HTML

- Directive 2001/116/EC of 20 December 2001 adapting to technical progress Council Directive 70/156/EEC on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0116:EN:HTML

- Council Directive 92/97/EEC of 10 November 1992 amending Directive 70/157/EEC on the approximation of the laws of the Member States relating to the permissible sound level and the exhaust system of motor vehicles: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0097:EN:HTML

- Directive 2001/43/EC of the European Parliament and of the Council of 27 June 2001 amending Council Directive 92/23/EEC relating to tyres for motor vehicles and their trailers and to their fitting: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0043:EN:HTML

- Directive 1999/96/EC of the European Parliament and of the Council of 13 December 1999 on the approximation of the laws of the Member States relating to measures to be taken against the emission of gaseous and particulate pollutants from compression ignition engines for use in vehicles, and the emission of gaseous pollutants from positive ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles and amending Council Directive 88/77/EEC: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0096:EN:HTML

- Directive 2005/55/EC of the European Parliament relating to the measures to be taken against the emission of gaseous and particulate pollutants from compression-ignition engines for use in vehicles, and the emission of gaseous pollutants from positive-ignition engines fuelled with natural gas or liquefied petroleum gas for use in vehicles: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2005:275:0001:01:EN:HTML

- Directive 1999/94/EC relating to the availability of consumer information on fuel economy and CO2 emissions in respect of the marketing of new passenger cars: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0094:EN:HTML

- Proposal of European Directive on the promotion of clean road transport vehicles (2005/0283): http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0634:FIN:EN:HTML

- Proposal for a Directive of the European Parliament and of the Council amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and the introduction of a mechanism to monitor and reduce greenhouse gas emissions from the use of road transport fuels and amending Council Directive 1999/32/EC, as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC, COM(2007) 18 final: http://ec.europa.eu/environment/air/pdf/fuel/com_2007_18_en.pdf

- Proposal for a Directive of the European Parliament and of the Council on the promotion of clean and energy efficient road transport vehicles COM(2007) 817 final: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52007PC0817:EN:HTML
- Technical report series. Environmental Impact of Products (EIPRO). Analysis of the life cycle environmental impacts related to the final consumption of the EU-25. IPTS/ESTO project. European Commission, Directorate-General, Joint Research Centre. May 2006:
- http://ec.europa.eu/environment/ipp/identifying.htm
- Costs and Benefits of Green Public Procurement in Europe. Part 1: Comparison of the Life Cycle Costs of Green and Non green Products. Germany. 2007: http://ec.europa.eu/environment/gpp/index_en.htm
- FEHRL (forum of European National Highway Research Laboratories) report. Final Report S12.408210 Tyre/Road Noise. May 2006.

- Enterprise and Industry: http://ec.europa.eu/enterprise/automotive/pagesbackground/pollutant_emission/index.htm
- Environment: http://ec.europa.eu/environment/co2/co2_home.htm and http://ec.europa.eu/environment/air/index.htm

- European Ecolabel: http://ec.europa.eu/environment/ecolabel/
- Blue Angel ecolabel: http://www.blauer-engel.de/englisch/navigation/body_blauer_engel.htm
- Nordic Swan ecolabel: http://www.svanen.nu/Eng/
- Catalan ecolabel for regenerated lubricant oils: http://mediambient.gencat.net/cat/empreses/ecoproductes_i_ecoserveis/distintiu.jsp
- GreenLabelsPurchase GPP Guidelines: http://www.greenlabelspurchase.net

Toolkit developed for the European Commission by ICLEI - Local Governments for Sustainability, 2008

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Credits: Picture courtesy of Mark Hidson

10. Annex I: Noise level limits for vehicles

The noise level measured according to Directive 92/97/EEC shall not exceed the following limits:

Vehicle categories	Engine power	dB (A)
Vehicles intended for the carriage of passengers, and comprising not more than nine seats including the driver's seat (M1)		74 (1)(3)
Vehicles intended for the carriage of passengers and equipped with more than nine seats, including the driver's seat; and having a maximum permissible mass > 3,5 Tn and (M2 and M3):	< 150kW	78
	150 kW	80 (2)
Vehicles intended for the carriage of passengers and equipped with more than nine seats including the driver's seat (M2) and vehicles intended for the carriage of goods (N1) with a maximum permissible mass < 2 Tn:		76 (1)
Vehicles intended for the carriage of passengers and equipped with more than nine seats including the driver's seat (M2) and vehicles intended for the carriage of goods (N1) with a maximum permissible mass 2 Tn <3,5:		77 (2)
Vehicles intended for the carriage of goods and having a maximum permissible mass > 3,5 Tn (N2 and N3):	< 75 kW	77 (2)
	75 kW<150	78 (2)
	150	80 (2)

However:

(1) The limit values are increased by 1 dB (A) if they are equipped with a direct injection diesel engine.

(2) For vehicles with a maximum permissible mass of over two tonnes designed for off-road use, the limit values are increased by 1 dB (A) if their engine power is less than 150 kW and 2 dB (A) if their engine power is 150 kW or more.

(3) Vehicles equipped with a manually operated gear box having more than four forward gears and with an engine developing a maximum power exceeding 140 kW/t and whose permissible maximum power/maximum mass ratio exceeds 75 kW/t, the limit values are increased by 1 dB (A) if the speed at which the rear of the vehicle passes the line BB& prime in third gear is greater than 61 km/h.

11. Annex II: Noise level limits for tyres

The noise level measured according to Directive 2001/43/EC shall not exceed the following limits:

Class C1 tyres for passenger cars:

		Limit values in dB(A)	
Tyre class	**Nominal section width (mm)**	**A**	**B (1)**
C1a	145	72 (*)	71
C1b	>145 165	73 (*)	72
C1c	>165 185	74 (*)	73
C1d	>185 215	75 (*)	74
C1e	215	76 (**)	75

(*) applies until the 30 of June 2008, afterwards the value in column B applies.
(**) applies until the 30 of June 2009, afterwards the value in column B applies.
(1) indicative figures only. Definitive figures will depend on amendment of the Directive following the report required in Article 3(2) of Directive 2001/43/EC.
For reinforced (or Extra Load) tyres the limit values shall be increased by 1 dB(A).
For tyres classified in category of use "Special" the limit values shall be increased by 2 dB(A).

Class C2 tyres for commercial vehicle tyres with load capacity index in single formation 121 and speed category symbol " N"; with reference to the category of use:

Category of use	Limit value expressed in dB(A)
Normal	75
Snow	77
Special	78

Class C3 tyres for commercial vehicle tyres with load capacity index in single formation 121 and speed category symbol "M or commercial vehicle with load capacity index in single formation 122; with reference to the category of use:

Category of use	Limit value expressed in dB(A)
Normal	76
Snow	78
Special	79