



Environment and Spatial Planning
*Ministry of Housing, Spatial Planning and
the Environment*

Criteria for the Sustainable Public Procurement of **Heavy-Duty Motor Vehicles**

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1 Introduction

The Dutch government wants to take concrete steps towards a sustainable society, and to set a good example. Each year, government organisations spend more than EUR 50 billion on the purchase of Supplies, Services and Public works. By purchasing sustainably, the government can significantly boost the market for Sustainable Public Products. Governmental authorities have set clear objectives to achieve this: the central government is aiming for 100% Sustainable Public Procurement in 2010, while the municipalities aspire towards 75% in 2010 and 100% in 2015. Provincial governments and water boards have set themselves the target of at least 50% in 2010. 100% Sustainable Public Procurement is understood to mean that all purchases meet the minimum requirements that have been set for the relevant product groups at the time of purchase. More information on this topic is available from the website Sustainable Procurement (www.agentschapnl.nl/sustainableprocurement).

NL Agency supports government authorities in various ways to help reach these objectives. These include developing criteria for Supplies, Services and Public works procured by these authorities. This document focuses on the criteria for the Heavy-Duty Motor Vehicles product group, the elaboration of the criteria in specification texts and a more detailed assessment of the criteria, as well as a number of points for attention in the pre- and post-procurement stages. Additional background information and considerations regarding the content of the criteria can be found in the criteria document on the website Sustainable Procurement www.agentschapnl.nl/duurzaaminkopen/criteria, available in Dutch only.

1.1 Definition of the product group

The Heavy-Duty Motor Vehicles product group includes freight vehicles issued with a registration number and used for the transport of goods or equipped for the performance of specific tasks (for example: household waste collection vehicles). This involves the procurement of goods (supply).

For the benefit of the contracting authority, a number of CPV codes that might be of relevance to this product group have been included in this document. The selection is by no means exhaustive or complete. The contracting authority will remain responsible for compiling the correct set of CPV codes to match the relevant tender.

The following CPV codes apply to this product group:

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| 34120000-4 | Motor vehicles for the transport of 10 or more persons. |
| 34140000-0 | Heavy-duty motor vehicles. |
| 34121000-1 | Buses and coaches. |
| 34121100-2 | Public-service buses. |
| 34121200-3 | Articulated buses. |
| 34121300-4 | Double-decker busses. |
| 34121400-5 | Low-floor buses. |
| 34121500-6 | Coaches. |
| 34130000-7 | Motor vehicles for the transport of goods. |
| 34131000-4 | Pick-ups. |
| 34136200-1 | Panel vans. |

2 Sustainability in the procurement process

The criteria in this document have been classified in the various steps of the public procurement process. More information about these steps and how to combine them with sustainability can be found in the Sustainable Public Procurement Manual. This manual can be downloaded from the website Sustainable Procurement www.agentschapnl.nl/sustainableprocurement.

2.1 Preparatory stage (points for consideration)

Every purchase or call for tender starts with drawing up the inventory of the needs of the internal or external customer. Sustainability can be incorporated into this stage by considering whether the purchase is truly necessary and whether a more sustainable alternative might be available. Specific points for consideration regarding procurement for the Heavy-Duty Motor Vehicles product group are:

Reducing the desired volume of the procurement (in numbers of vehicles).

Before the decision to purchase a heavy-duty vehicle is made, the following questions must be answered: Is it really necessary to purchase a new heavy-duty motor vehicle? Is it possible to accomplish the task by temporarily renting a vehicle? In the case of incidental use, a rental contract is a possible alternative to purchasing a new heavy-duty vehicle. Or is it possible to make more efficient use of the existing heavy-duty vehicles, so that expanding the fleet is not (yet) necessary. However, the rented heavy-duty vehicle must in that case satisfy the criteria.

Opt for the smallest vehicles possible

In order to limit the environmental impact, it is important to purchase the smallest vehicles that can serve the envisioned purpose (and achieve the highest possible utilisation rate). This can sometimes lead to occasional overlap or the hiring of extra capacity at peak times. This is a matter of achieving a balance. After all, smaller vehicles are more fuel efficient (and less expensive to purchase).

2.2 Specification stage (criteria)

During the specification stage, the needs of the internal or external customer are translated into a tender document. This stage entails the formulation of:

- Criteria for supplier qualification. These could include grounds for exclusion, suitability requirements, i.e. requirements with regard to suppliers, and, in the case of restricted procedures, any selection criteria, i.e. wishes with regard to suppliers.
- A description of the minimum requirements pertaining to supply, service or task (the Schedule of Requirements).
- Award criteria, i.e. wishes regarding Supplies, Services and Public works. These are only applicable when the tendering process is based on the principle of the Most Economically Advantageous Offer ('Economisch Meest Voordelige Inschrijving' or EMVI).
- The contract stipulating the contract provisions.

More information on the various types of criteria and the various tender options can be found in the Sustainable Public Procurement Manual. Innovation is also included in the award criteria, where relevant. Innovation is oriented towards the development and introduction of new ideas and products.

The criteria in this document have been formulated to support the purchaser in the Sustainable Public Procurement of Heavy-Duty Motor Vehicles. The criteria have been subjected to legal review. However, every procurement and tender process is unique. For that reason, the drafting of a tender document remains the responsibility of the purchaser.

2.2.1 Supplier qualifications

No criteria have been formulated for this specific product group with regard to supplier qualification. More information on the possibilities of incorporating sustainability at this stage of the process can be found in the Sustainable Public Procurement Manual.

2.2.2 Schedule of requirements

Minimum requirements

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| <p>Minimum requirement no. 1</p> | <p>The vehicles to be supplied which are heavier than 3,500 kg must satisfy the Euro-V standard. See table M1 below for an explanation of the Euro standards.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> 1. A statement from the tenderer included in the tender that he satisfies this requirement. 2. An overview included in the tender indicating the vehicles to be supplied, specified by mark and type. 3. A copy of the type approval statement (can be obtained from the manufacturer) which indicates which Euro standard(s) have been granted for the type/types of vehicles to be supplied. |
| <p>Notes for purchaser</p> | <p>The Euro standards are determined by the European Commission. Every new type of vehicle brought on the market is evaluated for compliance with the current standard. This can be requested from the RDW (Centre for Vehicle Technology and Information) for each vehicle type.</p> <p>The Euro-III standard is the standard used in the <i>Nederlandse Convenant Milieuzonering</i> (Netherlands Environmental Zoning Covenant) (2006). In this covenant governments and the business sector made agreements on stimulating quiet and clean vehicles in environmental zones to be defined in each municipality. Euro-III vehicles may only enter the environmental zones until 1 January 2010 on condition that the vehicle is fitted with a soot filter. After 1 January 2010 the Euro-III vehicle may only enter the environmental zone if, in addition, the vehicle is not older than 8 years.</p> <p>Emission values per type of vehicle (weight class and fuel) of the Euro standards cited can be found at www.dieselnet.com/standards/eu and http://ec.europa.eu/environment/air/transport/road.htm</p> |

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| | <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> 1. A copy of the type approval statement (can be obtained from the manufacturer) which indicates which Euro standard(s) have been granted for the type/types of vehicles to be supplied. 2. A copy of the type approval statement (can be obtained from the manufacturer) which indicates which Euro standard(s) have been granted for the type/types of vehicles to be supplied. 3. No further verification of this means of proof. |
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Table M1 Euro standards for heavy vehicles (> 3,500 kg) with HD diesel engines (for the sake of illustration)

| Euro standard | Effect date (new vehicles) | Emission values (in g/kWh, smoke in m ⁻¹) | | | | |
|---------------|----------------------------|---|------|-----|------|-------|
| | | CO | HC | NOx | PM | Smoke |
| Euro-V | October 2008 | 1.5 | 0.46 | 2.0 | 0.02 | 0.5 |

Emission values per type of vehicle (weight class and fuel) of the Euro standards cited can be found at <http://ec.europa.eu/environment/air/transport/road.htm> and at www.dieselnet.com/standards/eu.

2.2.3 Award criteria

Award criteria

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| Award criterion no.1 | <p>If all vehicles to be supplied heavier than 3,500 kg satisfy the EEV ("Enhanced Environmentally-friendly Vehicle) or Euro-VI standard, [XX] points are awarded for this section. See table G1 below for an explanation of the Euro standards and EEV values.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> 1. A statement from the tenderer included in the tender that he satisfies this award criterion. 2. An overview included in the tender indicating the vehicles to be supplied, specified by mark and type. 3. An overview included in the tender indicating the vehicles to be supplied, specified by mark and type and provided with a copy of the type approval statement. |
| Notes for purchaser | <p>The Euro standards are determined by the European Commission. Every new type of vehicle brought on the market is evaluated for compliance with the current standard. This can be requested from the manufacturer for each vehicle type.</p> <p>Pollutant emissions from combustion engines can be reduced by technical adjustments to the engines or by fitting a soot filter.</p> |

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| | <p>The European Commission has set up a system of standards (Euro standards) for motor vehicle emissions; these standards become stricter over time. Since October 2008 Euro-V is the statutory requirement for heavy vehicles.</p> <p>EEV stands for Enhanced Environmentally-friendly Vehicle. The EEV values go further than the Euro-V standard with respect to emissions of hydrocarbons and noise. The EEV values can be achieved by purchasing a vehicle with an engine fuelled by natural gas, for instance.</p> <p>Emission values per type of vehicle (weight class and fuel) of the Euro standards cited can be found at www.dieselnet.com/standards/eu and http://ec.europa.eu/environment/air/transport/road.htm.</p> <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> 1. A copy of the type approval statement (can be obtained from the manufacturer) which indicates which Euro standard(s) have been granted for the type/types of vehicles to be supplied. 2. A copy of the type approval statement (can be obtained from the manufacturer) which indicates which Euro standard(s) have been granted for the type/types of vehicles to be supplied. 3. No further verification. |
|--|---|

Table G1 Euro standards for heavy vehicles (> 3,500 kg) with HD diesel engines (for the sake of illustration)

| Euro standard | Effect date (new vehicles) | Emission values (in g/kWh, smoke in m ⁻¹) | | | | |
|---------------|----------------------------|---|------|-----|------|-------|
| | | CO | HC | NOx | PM | Smoke |
| EEV | - | 1.5 | 0.25 | 2.0 | 0.02 | 0.15 |
| Euro-VI | January 2013 (proposal) | 1.5 | 0.13 | 0.4 | 0.01 | - |

Emission values per type of vehicle (weight class and fuel) of the Euro standards cited can be found at <http://ec.europa.eu/environment/air/transport/road.htm> and at www.dieselnet.com/standards/eu.

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| Award criterion no.2 | <p>If all vehicles to be supplied are equipped with quieter tyres - with safety properties remaining the same (EU tyre directive 92/23/EEC), [XX] points are awarded for this section.</p> <p>For quieter tyres, the noise value (in dB(A)) is at least the following number of dB(A) below the European limit (see table G2 below for an explanation of the noise values for different tyre classes):</p> <ul style="list-style-type: none"> • 5 dB(A) (tyres for passenger cars); • 4 dB(A) (light commercial vehicle tyres); • 5 dB(A) (freight truck tyres for powered axles); • 7 dB(A) (freight truck tyres for steering or trailer axles); |
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| | <p>The noise value is measured by the RDW according to the methods described in the tyres directive 92/23/EEC, annex V, schedule 1.</p> <p>Tyres that are on the lists of the Innovation Programme for Noise (IPG) (see www.innovatieprogrammageluid.nl) satisfy this criterion in any event.</p> <p><u>Means of proof:</u></p> <ol style="list-style-type: none"> 1. A statement from the tenderer included in the tender that he satisfies this award criterion. 2. A list included in the tender indicating the vehicles to be supplied and the technical specifications of the tyres used. |
| Notes for purchaser | <p>Quiet tyres reduce the external noise produced.</p> <p>More information can be found at: http://www.innovatieprogrammageluid.nl.</p> <p>Before tyres are brought out on the European market, they must undergo type inspection. This type inspection is laid down in European Directive 92/23/EEC. The RDW conducts measurements according to the measuring method described in the tyres directive 92/23/EEC, annex V, schedule 1.</p> <p>A comparative list of tyres can be found here:</p> <ul style="list-style-type: none"> • IPG list of Quiet Passenger Car Tyres 01 June 2007 http://www.innovatieprogrammageluid.nl/page.asp?id=836 • IPG list of Quiet Light Commercial and Freight Vehicle Tyres 31 May 2005 http://www.innovatieprogrammageluid.nl/data/files/algemeen/IPG-lijst31052005.pdf <p><u>Verification of means of proof:</u></p> <ol style="list-style-type: none"> 1. A comparison of the list submitted with the current IPG list of Quiet Passenger Car Tyres or Quiet Light Commercial and Freight Vehicle Tyres. 2. No verification of the statement or request for further means of proof. |

Table G2 Noise values for various tyre classes

| Tyre class | Nominal section width (in mm) | Limit values in dB(A) |
|-------------------|--|------------------------------|
| C1a | ≤145 | 72 |
| C1b | >145 ≤165 | 73 |
| C1c | >165 ≤185 | 74 |
| C1d | >185 ≤215 | 75 |
| C1e | >215 | 76 |
| C2 Normal | | 75 |
| C2 Winter | | 77 |
| C2 Special | | 78 |
| C3 Normal | | 76 |
| C3 Winter | | 78 |
| C3 Special | | 79 |

2.2.4 Contract

No contract provisions have been formulated for this product group.

2.3 Utilisation stage (points for consideration)

Once the procurement stage has been concluded and a product or service has been purchased, there are opportunities for using the product in a sustainable manner. Specific points for consideration for this product group are:

Timely and correct maintenance

During the working life of the vehicle, regular and professional maintenance is essential to maintain the environmental performance of the vehicles. Criteria for the maintenance of vehicles are included in the product group "Vehicle maintenance services".

An important point for consideration in connection with the fuel consumption of a vehicle is proper tyre pressure. This can save 2 to 3% on fuel consumption. Periodically checking the tyre pressure is an important aspect of maintaining vehicles.

Efficient driving

Fuel consumption during the utilisation stage can be reduced by driving more efficiently. Efficient driving is encouraged by means of the Dutch national eco-driving programme *Het Nieuwe Rijden* or alternative training programmes. These are training courses that drivers can take in order to achieve a change in driving behaviour that results in lower fuel consumption.

The most important components of *Het Nieuwe Rijden* are: proper tyre pressure; early gear changes; avoidance of unnecessary braking and accelerating; turning off the engine while standing; switching off unnecessary equipment; etc. Drivers who take a training course in *Het Nieuwe Rijden* are given a certificate.

As of 1 January 2008 the CBR (Central Office for Motor Vehicle Driver Testing) has evaluated the principles of *Het Nieuwe Rijden* as a separate item in the new driving test. This means that everyone who received their driving licence after this date is familiar with *Het Nieuwe Rijden*.

The use of an on-board computer that continuously measures fuel consumption also serves to encourage more fuel-efficient driving. On-board computer systems, in combination with GPS positioning, possible peripheral equipment and mobile data communication, can give transport companies and their principals insight into the status of the vehicle and freight, and the performance delivered. Because the driver is continuously aware of the consequences of his driving behaviour on fuel consumption, he can immediately adapt his driving style. Moreover, the fleet owner can use the results of the on-board computers of all vehicles to address (and possibly penalise/reward) the drivers with regard to their average fuel consumption.

Biodegradable lubricants and hydraulic oil

There are sustainable varieties of oils and lubricants, specifically biodegradable non-toxic lubricants and hydraulic oil. The use of biodegradable lubricants, oils and fuels reduces environmentally harmful emissions (into the air and soil) during the utilisation stage.

A product is considered biodegradable if the ultimate degradability within 28 days is more than 60% according to the OECD 301D method (which measures biological oxygen consumption) or the 301B method (for determining the CO₂ content). The primary degradability within 28 days must be at least 90%, determined by a relevant chemical method.

MIA and Vamil have already stipulated requirements for the biodegradability and non-toxicity of hydraulic oil. These requirements became more stringent in 2008. Bio-oil must have a certificate from the European Eco-label. Joining the European Eco-label also entails conditions on bioaccumulativeness and the explicit exclusion of a number of harmful substance groups. This leads to a greater prevention of environmental damage due to leakages. An estimated 20-30 % of all hydraulic oil sold still ends up in the environment.

An important Eco-label requirement is also that a substantial percentage of the hydraulic oil must consist of renewable, usually plant-based raw materials. This limits the CO₂ emission from the use of hydraulic oil.