

A photograph of a wind farm with several white wind turbines in a row, stretching into the distance. The sky is bright blue with scattered white clouds. A series of yellow dots is overlaid on the top half of the image, creating a dotted pattern.

Environmental criteria for sustainable public procurement of

Heavy-duty motor vehicles and mobile equipment including maintenance services

Version 30 March 2017

1. Scope/definition

This product group comprises:

- heavy-duty motor vehicles: the procurement, rental and leasing of heavy-duty motor vehicles issued with a registration number and used for the transport of goods and passengers or equipped for the performance of specific tasks such as household waste collection vehicles. Heavy-duty motor vehicles are deemed to mean road vehicles with a gross weight (the sum of the mass of the empty vehicle and the maximum allowed loading weight) heavier than 3,500 kg. The procurement of the maintenance services of heavy-duty motor vehicles is also a part of this product group;
- mobile equipment: the procurement, rental and leasing of mobile machinery not intended for the road, such as mobile equipment, conveyable industrial equipment or vehicles with or without a body, not intended for the road transport of passengers or goods with power as from 19 kW. The procurement of mobile equipment maintenance services also falls within the scope of this product group.

The following products (with their corresponding CPV codes) are part of this product group. This list of products is not intended to be exhaustive.

Products	CPV code
Heavy-duty motor vehicles	
Heavy-duty motor vehicles	34140000-0
Buses and coaches	34121000-1
Public-service buses	34121100-2
Motor vehicles for the transport of goods	34130000-7
Pick-ups	34131000-4
Panel vans	34136200-1
Mobile equipment	
Mowers	16310000-1
Tractors	16700000-2
Generators	31120000-3
Generating sets	31121000-0
Road-sweeping vehicles	34144430-1
Shovel loaders	34144710-8
Hoisting cranes	42414100-2
Forklift trucks	42415100-9
Earth moving and excavating machinery, and accompanying parts	43200000-5
Steamrollers	43312500-8
Cherry pickers	44481000-5
Maintenance services	
Repair and maintenance services of motor vehicles and associated equipment	50110000-9
Fleet management, repair and maintenance services	50111000-6
Repair and maintenance services of lorries	50117000-7
Repair and maintenance services of generators	50532300-6

Excluded from the scope of this product group are:

- one-off short-term rentals of heavy-duty motor vehicles;
- one-off short-term mobile equipment rentals.

This document describes the environmental criteria. Information about the other elements of sustainable public procurement, such as social conditions and social return, may be found on the PIANOo website, on the specific product group page: <https://www.pianoo.nl/document/10847/productgroep-zware-voertuigen-mobiele-werktuigen-aanschaf-inclusief-onderhoud>.

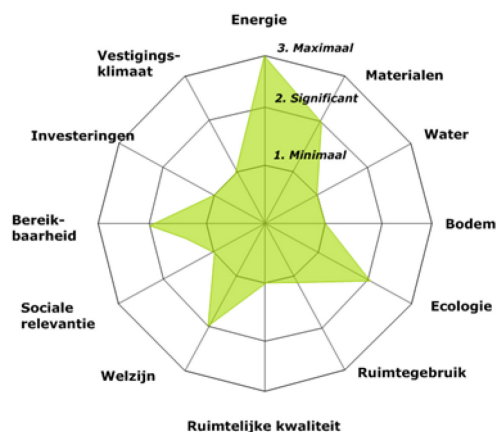
2. Criteria documents and approach to sustainable groundwork, road and hydraulic engineering

The core of the Sustainable Groundwork, Road and Hydraulic Engineering Approach is to allow sustainability aspects to be a consideration from an early planning stage, with a focus on the whole life cycle of the infrastructure or object(s) to be built. This is the approach that facilitates the biggest gains in sustainability, and it allows a good and broad-based consideration of People, Planet and Profit to be made in every project (see also <http://duurzaamgww.nl>).

The AmbitionWeb has a key role in the Sustainable Groundwork, Road and Hydraulic Engineering Approach. It helps clarify ambitions at an early stage of a project, so they can then be maintained throughout the entire project process, from start to finish. For more information about the Sustainable Groundwork, Road and Hydraulic Engineering Approach and AmbitionWeb, see <http://duurzaamgww.nl/ambitieweb>.

The AmbitionWeb revolves around a number of sustainability themes, each with three ambition levels:

1. insight into the biggest impactors and flows for the theme in question, with the achievement of a minimum level, “state of the art”;
2. drafting specific reduction targets and achieving a significant improvement on the theme in question;
3. adding value, instead of just making things “less bad”. Not only is the impact on people/planet/profit zero, but a positive contribution is made.



Part of level 1 is meeting the suitability requirements, minimum requirements and contract provisions of the Sustainable Procurement criteria documents. The award criteria may be used to make a contribution to levels 2 and 3.

The following table presents the themes, based on the classification used in the criteria documents, on which the buyer can actually have an impact by using the requirements and criteria in this criteria document. It should be noted that a slightly different classification is used in the AmbitionWeb.

Below is a list of the requirements and criteria broken down by the individual themes. The criteria documents identify a total of five themes (the corresponding theme from the AmbitionWeb is shown in brackets):

- energy and climate (AmbitionWeb: “energy”);
- supplies and raw materials (AmbitionWeb: “supplies”);
- water and soil (AmbitionWeb: “water” and “soil”);
- living environment (AmbitionWeb: “welfare”);
- nature and space (AmbitionWeb: “ecology”).

The following table presents the themes on which the buyer can actually have an impact by using the requirements and criteria in this criteria document.

Themes	Level 1 AmbitionWeb Selection criteria (SC) Technical specifications (ME) Contract provisions (CB)	Level 2 AmbitionWeb Award criteria (GC)
Energy and climate	ME4. Protocol regarding energy-efficient use	GC1/GC3. Fuel-saving options GC2/GC4 Alternative drive or sustainable fuels
Supplies and	ME2. Retreaded tyres	

Raw materials	CB1. Recycled components	
Water and Soil	ME5. Lubricants	
Living environment	ME1. Euro standard heavy-duty vehicles SC1. Environmental management system ME3. Mobile Equipment phase standard	GC5. Quiet mobile equipment

3. Assignment of criteria to project phases

The criteria are assigned to different project phases. The criteria in this document pertain to the acquisition and the maintenance of heavy-duty vehicles and mobile equipment. In the following table, the criteria are assigned to the individual phases to which they apply.

Heavy-duty vehicles:

Criterion	Area of application	
	Purchase	Maintenance services
Selection criteria		
1. Management system	-	x
Technical specifications		
1. Euro standard heavy-duty vehicles	x	-
2. Retreaded tyres	x	-
3. Lubricants	x	x
Award criteria		
1. Fuel-saving options	o	-
2. Alternative drive or sustainable fuels	o	-
Contract provisions		
1. Recycled components	-	x

x = include in this phase

- = do not include in this phase

o = optional

Mobile equipment:

Criterion	Area of application	
	Purchase	Maintenance services
Selection criteria		
1. Management system	-	x
Technical specifications		
1. Mobile Equipment phase standard	x	-
2. Protocol regarding energy efficient use	x	-
3. Lubricants	x	x
Award criteria		
1. Fuel-saving options	o	-
2. Alternative drive or sustainable fuels	o	-

3. Quiet mobile equipment	o	-
Contract provisions		
1. Recycled components	-	x

4. Selection criteria

No.	Selection criteria (SC)
SC1	<p><i>Only applicable to maintenance on heavy-duty motor vehicles and mobile equipment</i></p> <p>Management system For that part/those parts of the organisation that is/are involved in the execution of the contract, the tenderer has a management system in which at least the following matters have been arranged:</p> <ul style="list-style-type: none"> the concrete measures that are implemented to reduce the burden on the environment of business processes that are related to the execution of the contract such as the use of biological lubricants and hydraulic oil and the method used when handling coolants; that compliance with relevant environmental legislation is safeguarded; the staff is made aware and their competence addressed with regard to dealing with the environmental aspects relevant to this contract; how the environmental aspects that are relevant for the contract are monitored as the basis for the quality guarantee. <p>More information may be found on the following EMAS website: http://ec.europa.eu/environment/emas/index_en.htm.</p> <p><i>Verification</i> The tenderer may be asked to submit documentation demonstrating compliance with the requirements above. An environmental management system such as ISO 14001 or EMAS shows that a company or organisation uses a systematic management system to deal with relevant environmental issues on a day to day basis. Please check that the certificate relates to the subjects stated in the requirement (actual measures, safeguarding of compliance with environmental legislation, raising staff awareness and monitoring).</p> <p>The website of the SCCM foundation for the coordination of certification of environmental and occupational health and safety management offers a database that includes all ISO 14001 certificates of certification institutions in the Netherlands accredited by the Dutch Accreditation Council (RvA). In the unlikely event that a certificate is not included in the database, contact the relevant certification institution. The contact details are available online (www.sccm.nl).</p>

5. Technical specifications

Heavy-duty vehicles:

No.	Technical specifications (ME)
ME1	<p>Euro standard heavy-duty vehicles The vehicles to be supplied which have a gross vehicle weight that is heavier than 3,500 kg must satisfy the Euro VI (Enhanced Environmentally-friendly Vehicle) standard.</p> <p>Gross vehicle weight is deemed to mean the following: the sum of the mass of the empty vehicle and the maximum allowed loading weight (that is Gross Vehicle Weight or GVW).</p> <p><i>Explanation</i> There are several sources for the Euro standard referred to above, including http://www.dieselnet.com/standards/eu/hd.php and http://ec.europa.eu/environment/air/transport/road.htm.</p> <p><i>Verification</i> The tenderer may be asked to provide a copy of the class approval papers. The Euro standards per</p>

	vehicle type can, for example, be derived from this. Information such as the Euro standard can be looked up on the RDW website by entering the registration number of the vehicle in question.						
ME2	<p>Noise emissions and rolling resistance from vehicle tyres</p> <p>The following applies to vehicles with a gross weight of more than 3500 kg:</p> <p>a. Noise emissions</p> <p>The vehicles must be equipped with tyres with a noise emission level of at least 3 dB below the maximum established in Regulation (EC) No 661/2009 of the European Parliament and of the Council of 13 July 2009 concerning type-approval requirements for the general safety of motor vehicles, their trailers and systems, components and separate technical units intended therefor, Annex II, Part C. This corresponds to one “sound wave” on the EU tyre label.</p> <p>b. Rolling resistance</p> <p>The rolling resistance (for both new and retreaded tyres), expressed in kg/tonne, may not exceed the threshold values given below, in accordance with ISO 28580 or equivalent:</p> <table><tr><td>Tyre class</td><td>Max. rolling resistance value (kg/tonne)</td><td>Fuel efficiency class of tyre labelling</td></tr><tr><td>C3</td><td>6.0</td><td>C</td></tr></table> <p>For information, see http://kiesdebesteband.nl/</p> <p><i>Verification</i></p> <p>The tenderer may be asked to provide a list of tyres to be used, along with the technical data or test results of the tyres (in accordance with ISO 28580:2009 or equivalent), stating the noise emissions and rolling resistance, as well as a signed declaration that only these products will be used during the term of the contract. Tyres with the EU tyre label that meets the criteria are in compliance.</p>	Tyre class	Max. rolling resistance value (kg/tonne)	Fuel efficiency class of tyre labelling	C3	6.0	C
Tyre class	Max. rolling resistance value (kg/tonne)	Fuel efficiency class of tyre labelling					
C3	6.0	C					
ME3	<p>Retreaded tyres</p> <p>Retreaded tyres and tread regrooving is used in relation to tyre maintenance service of heavy-duty motor vehicles with a gross vehicle weight as from 7.5 tonnes (vehicle categories M3, N2 and N3) with the exception of tyres on the first front axles.</p> <p>Gross vehicle weight is deemed to mean the following: the sum of the mass of the empty vehicle and the maximum allowed loading weight (that is Gross Vehicle Weight or GVW).</p> <p><i>Explanation</i></p> <p>The supply of retreaded tyres is limited or there are no retreaded tyres for a number of vehicle types. This may, for example, be the case in relation to off-road vehicles or vehicles that are deployed during disasters such as fire service vehicles. If, as the government purchaser, you wish to use retreaded tyres in relation to tyre maintenance service, it is therefore important to carry out research into the availability of retreaded tyres in advance.</p> <p>You can assess whether the supply is sufficient to include this minimum requirement in the tender based on the results from the market research.</p> <p><i>Verification</i></p> <p>The tenderer may be asked to submit documentation demonstrating compliance with the requirements above.</p>						

Mobile equipment:

No.	Technical specifications (ME)
ME3	<p>Mobile Equipment phase standard</p> <p>The mobile diesel equipment with engines with a variable rpm are at least in compliance with the following phase standards (see Directive 2004/26/EC and 2005/13/EC):</p> <ul style="list-style-type: none"> 19 kW to 37 kW power: Phase standard III-A; 37 kW to 56 kW power: Phase standard III-B; 56 kW to 560 kW power: Phase standard IV. <p>For equipment in the category 56-560 kW with a very specific application, there may not be more than one supplier of equipment in compliance with phase standard IV. The purchaser must explore the options in advance. If there proves to be an insufficient number of providers, then this equipment will be subject to phase standard III-B.</p>

	<p>The mobile diesel equipment with engines with a constant rpm are at least in compliance with phase standard III-A (see Directive 2004/26/EC):</p> <p><i>Explanation</i> Phase standards are also referred to as "Stage Standards" in English. Mobile equipment must be inspected in accordance with the European phase standards. Mobile equipment inspected in accordance with the American TIER standards does not satisfy the minimum requirement.</p> <p>Emission values for each type of mobile equipment (type and capacity) of the cited phase standards can be found at www.dieselnet.com/standards/eu/nonroad.php.</p> <p>Mobile equipment with a capacity from 19 kW to 37 kW must be in compliance with phase standard III-A because phase standard III B and higher has not yet been defined for this mobile equipment category.</p> <p>Mobile equipment with a capacity from 37 kW to 56 kW must be in compliance with phase standard III-B because no phase standard IV has yet been determined for this mobile equipment category.</p> <p>For mobile equipment with engines with a constant rpm, the start dates for phase standard III-B are not yet known.</p> <p><i>Verification</i> The tenderer may be asked to provide a copy of the declaration of conformity. The power output and the emission values can be derived from this for each equipment type.</p>
ME4	<p>Protocol regarding energy efficient use Upon delivery of mobile equipment, the supplier must provide the protocol for use. All instructions that users of the mobile equipment must adhere to in order to save on fuel are specified clearly in the protocol for use. An indication of the effect of the instruction is provided for each instruction. The effect is expressed as a percentage of fuel savings and litre of fuel savings per running hour (or kWh in relation to electricity) during normal use.</p> <p><i>Verification</i> The tenderer may be asked to submit documentation demonstrating compliance with the requirements above.</p>

General:

No.	Technical specifications (ME)
ME5	<p>Lubricants</p> <ol style="list-style-type: none"> For maintenance, vehicles with a gross weight of over 3500 kg or mobile equipment must use motor oils with a low viscosity or regenerated lubricants, with at least 25% regenerated base oils. Lubricants with a low viscosity are in the category SAE 0W30, SAE-5W30 or equivalent. Hydraulic fluids and greases must not be classified with an environmental or health hazard or a warning sentence (R sentence) at the time of use (lowest classification limit in Regulation (EC) no. 1272/2008 or Directive 99/45/EC of the Council). No deviation is permitted from the prohibition in article 6, paragraph 6, of Regulation (EC) no. 66/2010 for substances considered of serious concern and included on the list referred to in article 59 of Regulation (EG) no. 1907/2006, insofar as present in concentrations in excess of 0.010 percent by weight in mixtures. The carbon content from renewable resources must be $\geq 45\%$. The cumulative mass concentration of component substances that are both non-biodegradable and bioaccumulative may not exceed 0.1 percent by weight. Vehicles to be supplied with a gross weight greater than 3500 kg with leak protection systems to prevent leaks of greases and/or hydraulic oils. <p><i>Verification</i> The tenderer may be requested to provide the technical data on the lubricants. Products with a relevant Type I environmental label answering to the listed criteria will be assumed to be in compliance. Other appropriate forms of evidence, such as a technical file or approval report from an independent institution, will also be accepted. Products with the European Ecolabel will be assumed to be in compliance with requirements a through e. A list of oils and greases that are in compliance with the requirements of the</p>

	<p>European Ecolabel can be found at http://www.rvo.nl/sites/default/files/2014/Olielijst. For an explanation of the Type I environmental label, see http://nen.nl/NEN-Shop/Norm/NENENISO-140242000-en.htm</p> <p>Source EU GPP</p>
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6. Award criteria

Heavy-duty vehicles:

No.	Award criteria (GC)																
GC1	<p>Fuel-saving options If heavy-duty vehicles with a gross vehicle weight heavier than 3,500 kg are equipped with one or more of the fuel-saving options listed in the table below, this component will be assessed as follows:</p> <table border="1"> <thead> <tr> <th>Fuel-saving option</th><th>Assessment per vehicle to be delivered</th></tr> </thead> <tbody> <tr> <td>Fuel consumption indicator</td><td>[XX]</td></tr> <tr> <td>Gear indicator</td><td>[XX]</td></tr> <tr> <td>Tyre pressure monitoring system (TPMS)</td><td>[XX]</td></tr> <tr> <td>Lightweight construction</td><td>[XX]</td></tr> <tr> <td>Aerodynamic features</td><td>[XX]</td></tr> <tr> <td>Cruise control</td><td>[XX]</td></tr> <tr> <td>Start-stop system</td><td>[XX]</td></tr> </tbody> </table> <p>Gross vehicle weight is deemed to mean the following: The sum of the mass of the empty vehicle and the maximum allowed loading weight (that is Gross Vehicle Weight or GVW).</p> <p><i>Explanation</i> Various fuel-saving options are available to reduce the fuel consumption of heavy-duty vehicles and, therefore, also CO₂ emissions. They, however, cannot just be applied to freight trucks but also buses. The list in this criterion is not exhaustive. There are more fuel-saving options that can contribute to an efficient driving behaviour. They can also be included in the table above.</p> <p><i>Verification</i> The tenderer may be asked to submit documentation showing that the vehicles to be delivered are equipped with one or more of the fuel-saving options listed below. A number of the specified fuel-saving options for each type of vehicle can also be derived from the type approval documents.</p>	Fuel-saving option	Assessment per vehicle to be delivered	Fuel consumption indicator	[XX]	Gear indicator	[XX]	Tyre pressure monitoring system (TPMS)	[XX]	Lightweight construction	[XX]	Aerodynamic features	[XX]	Cruise control	[XX]	Start-stop system	[XX]
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Aerodynamic features	[XX]																
Cruise control	[XX]																
Start-stop system	[XX]																
GC2	<p>Use of alternative fuels If the vehicle is designed for alternative fuel types or fuel systems, a higher rating may be assigned.</p> <p><i>Explanation</i> Examples are biofuels, systems that run on electricity or hydrogen or hybrid systems.</p> <p><i>Verification</i> The tenderer may be asked to specify these properties in the vehicle technical data to be provided. Information such as the drive type can be looked up on the RDW website by entering the registration number of the vehicle in question.</p> <p>Source EU GPP</p>																

Mobile equipment:

No.	Award criteria (GC)				
GC3	<p>Fuel-saving options If mobile equipment is equipped with one or more of the fuel-saving options listed in the table below, this component will score as follows:</p> <table border="1"> <thead> <tr> <th>Fuel-saving option</th><th>Assessment</th></tr> </thead> <tbody> <tr> <td>Backstop system</td><td>[XX]</td></tr> </tbody> </table>	Fuel-saving option	Assessment	Backstop system	[XX]
Fuel-saving option	Assessment				
Backstop system	[XX]				

	<div>Load sensing technology</div> <div>[XX]</div> <p><i>Explanation</i> Various fuel-saving options are available to reduce the fuel consumption of mobile equipment and, therefore, CO₂ emissions. The list in this criterion is not exhaustive. There are more fuel-saving options that can contribute to fuel savings. They can also be included in the table above.</p> <p><i>Verification</i> You can ask the tenderer(s) to whom you have the intention of awarding the contract for a copy of the declaration of conformity. The available fuel-saving options for each type of equipment can be derived from this.</p>
GC4	<p>Alternative drive or sustainable fuels</p> <p>If the vehicle is designed for alternative fuel types or fuel systems, a higher rating may be assigned.</p> <p><i>Explanation</i> Examples are biofuels, systems that run on electricity or hydrogen or hybrid systems.</p> <p><i>Verification</i> The tenderer may be asked to specify these properties in the vehicle technical data to be provided. These properties may also be given in the statement of conformity. The drive that the equipment to deliver has and the fuel that the equipment to deliver uses can be derived from this.</p> <p><i>Source EU GPP</i></p>
GC5	<p>Quiet mobile equipment</p> <p>The higher the degree to which mobile equipment with a low noise level is delivered, the higher the rating that may be assigned to the tender.</p> <p>Mobile equipment is considered low-noise if it is in compliance with the operative version of the MIA/VAMIL Brochure and the threshold values defined in the Environment List. For the 2016 version, see: http://www.rvo.nl/sites/default/files/Brochure%26/Milieulijst%202016.pdf.</p> <p><i>Verification</i> The tenderer may be asked to specify these properties in the vehicle technical data to be provided. These properties may also be given in the statement of conformity.</p> <p>You can determine which mobile equipment at least satisfies the requirements related to the maximum noise level by using the positive lists of the MIA/VAMIL regulations. See: Positive list E3412 (noise) to Environment List 2016, Mobile machines in compliance with noise requirements of code E 3412 (RVO) https://www.rvo.nl/sites/default/files/2016/01/Positieve lijst%203412%202016.pdf.</p>

7. Contract provisions

No.	Contract provisions (CB)
CB1	<p>Recycled components</p> <p>If visible components are being replaced during damage or other repair work, the contractor will indicate where use can be made of components from disassembled vehicles or equipment based on environmental considerations (recycled components). The contracting authority will make a decision based on this.</p> <p>The contractor will report to the commissioning authority about the components of disassembled vehicles used for repair work using a method to be determined in consultation.</p> <p><i>Explanation</i> This provision is meant to stimulate the use of components of disassembled vehicles for repairs and to obtain information about the ultimately used materials. It is recommended that the purchaser specify the reporting format in mutual consultation, depending on what the contracting authority can and wants to do with the data.</p>