



**Environmental criteria for sustainable public
procurement of**

Traffic Control Systems

Version 30 March 2017

1. Scope/definition

The product group Traffic Control Systems (TCSs) includes the active control systems on the roads in the Netherlands for pedestrians, vehicles and cyclists, shipping signals for waterways, etc. Traffic Control Systems on roads form instruments for traffic management. The traffic management itself falls outside the scope of the product group Traffic Control Systems.

The following products, with their corresponding CPV codes, are part of this product group. This list of products is non-exhaustive.

Products	CPV code
Design and consultation on new works and reconstruction	
Engineering-design services for traffic installations	71322500-6
Construction of new works and reconstruction	
Traffic lights	34996100-6
Crossing traffic control equipment	35262000-8
Installation of signalling equipment	45316200-7
Implementation of management and maintenance	
Traffic signal maintenance services	50232200-2
Demolition	
Demolition work	45111100-9
Shipping signals	
Vessel traffic control equipment	34931500-7

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.piano.nl/document/10843/productgroep-verkeersregelinstallaties>.

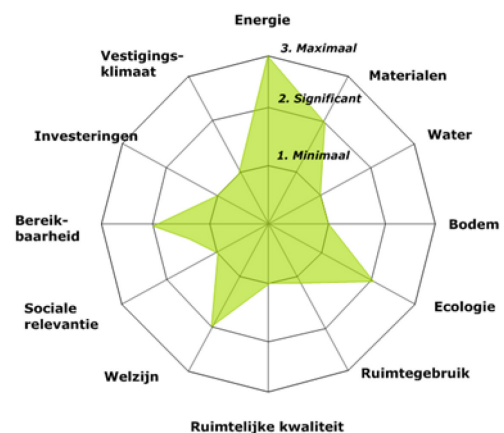
2. Criteria documents and approach to sustainable groundwork, road and hydraulic engineering

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, including how to achieve 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 according to 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)
<i>Energy and climate</i>	ME1. Dimming facility in control device ME2. Energy-saving light sources ME3. Energy-saving lamps and shipping signals	GC1. Sustainable design of Traffic control system GC2. Energy-saving light sources and control systems
<i>Supplies and raw materials</i>		GC1. Sustainable design of Traffic control system

3. Assignment of criteria to project phases

The criteria in this document pertain to the initiative behind and the design and completion of new construction and reconstruction of systems, as well as the management, maintenance and demolition of existing systems. In the following table, the criteria are assigned to the individual phases to which they apply.

Area of application Criterion	New construction and reconstruction/ Management and maintenance of existing systems	
	Initiative, design	Completion
Technical specifications		
1. Dimming facility in control device	x	x
2. Energy-saving light sources	x	x
3. Energy-saving lamps and shipping signals	x	x
Award criteria		
1. Sustainable design of Traffic control system	o	-
2. Energy-saving light sources and control systems	-	o

- x = include in this phase
- = do not include in this phase
- o = optional

Mobile vehicles

The environmental criteria for Sustainable Public Procurement of Mobile Equipment contracting apply to any mobile vehicles used.

4. Selection criteria

Not defined for this product group.

5. Technical specifications

No.	Technical specifications (ME)
ME1	<p>Dimming facility in control device</p> <ul style="list-style-type: none"> a. For new installations a control device with dimming facility must be used, according to section 2, paragraph 4 of the Traffic Light Regulation (<i>Regeling Verkeerslichten</i>) of 28 August 2001. b. For existing Traffic Control Systems a dimming facility must be used if implementing it is technically feasible without additional costs, and if the stop-light and lamp monitoring remain functional. <p><i>Explanation</i> For new installation, the control device and light sources can be geared to each other. The requirements with respect to dimming and stop-light and lamp monitoring can thus be fulfilled. The requirements for the light intensity of traffic lights are stipulated in the Traffic Lights Regulation (<i>Regeling Verkeerslichten</i>) of 28 August 2001, section 2, paragraph 5.</p> <p>Modification of an existing control device is costly. This requirement will therefore not be applicable in the ordinary maintenance situation.</p> <p><i>Verification</i> The tenderer may be asked to submit documentation demonstrating compliance with the requirements above.</p>
ME2	<p>Energy-saving light sources</p> <ul style="list-style-type: none"> a. For <i>new construction or complete replacement</i> of TCSs, class II light sources as referred to in the "Interface definition" (NPR-CLC/TS 50509 (2007) and Grensvlakdefinities- aanvullende eisen versie 1.1 (2013)) are installed. b. For <i>existing</i> VRIs, class II light sources as referred to in the "Interface definition" (NPR-CLC/TS 50509 (2007) and Grensvlakdefinities- aanvullende eisen versie 1.1 (2013)) are installed if the control device is technically capable of supporting them. The control device is suitable if it has a dimmer facility and if the stop-light and lamp monitoring remain operational. If class II light sources are not suitable for use on the control device, class I light sources may be installed, as defined in the <i>Grensvlakdefinitie</i> ("Interface Definition") as mentioned above. <p><i>Explanation</i> For existing traffic control systems, account must be taken of the stop-light monitoring and lamp monitoring. If this requires a greater power supply than that of the class II light sources, then a class I light source will have to be sufficient.</p> <p>It is also important to consider that in using modern light sources, the light emission is much greater than that of traditional bulbs. A dimmer facility is indispensable in this respect.</p> <p>The classification is laid down in the <i>Grensvlakdefinitie</i> ("Interface Definition"), a publication from the Association of traffic industries in the Netherlands (ASTRIN), and has been adopted as a product guideline for system suppliers. As 90% of the system suppliers are members of ASTRIN, this is stipulated by them as a standard and is accepted by the market.</p>

	<p><i>Verification</i> The tenderer may be asked to submit documentation demonstrating compliance with the requirements above.</p>
ME3	<p>Energy-saving lamps in shipping signals For new installation or complete replacement of shipping signals, LED2 lamps, or lamps with a comparable energy efficiency and lifetime, with two dimmed settings and a high efficiency dimmer transformer must be installed.</p> <p><i>Verification</i> The tenderer may be asked to submit documentation demonstrating compliance with the requirements above.</p> <p>Lamps with a KEMA hallmark comply with this requirement.</p>

6. Award criteria

No.	Award criteria (GC)
GC1	<p>Sustainable design of a Traffic control system The tenderer must detail in an action plan for the design of the Traffic Control System how they plan to fulfil:</p> <ul style="list-style-type: none"> • methods of energy saving; • sustainable material usage for a usage period of ten years. <p><i>Energy consumption</i> The aim is to achieve maximum saving in energy consumption in the use phase of the work.</p> <p><i>Sustainable material usage</i> The aim is to achieve an comprehensive assessment of the limitation of raw material consumption, energy consumption during manufacture, expected maintenance during lifetime, possibilities for re-use, impact resistance etc.</p> <p>The more the energy consumption is restricted, the higher the plan will be evaluated.</p> <p>The less the environment is impacted by the material to be used, the higher the plan will be evaluated. For this part, points will be awarded as follows: <...></p> <p><i>Explanation</i> You must yourself detail this criterion further by creating a point scale, taking account of the relative importance of this criterion. In terms of the energy consumption, for example, a comparison may be made with a similar traffic control system in which in any event the minimum requirements as listed in this document are applied. In the replacement of an existing situation, the energy consumption of the old situation may serve as a lower limit.</p> <p><i>Verification</i> After the contract is awarded, the designer may be asked to quantify the energy consumption of the traffic control system offered. In the tender, it will be sufficient to provide a description of the manner in which the energy consumption and material usage are part of the design.</p>
GC2	<p>Energy-saving light sources and control systems The less the energy used by the traffic control system, e.g. through light sources and control devices, the more points will be awarded to the tender. The total energy consumption of the traffic control system will be considered in the assessment of the tenders. For this part, points will be awarded as follows: <...></p> <p><i>Explanation</i> This criterion mainly concerns the differences in energy consumption between systems from different suppliers. In the choice among systems, the total energy consumption will be used as an award criterion with a weighting factor. You must yourself detail this criterion further by creating a point scale, taking account of the relative importance of this criterion.</p> <p><i>Verification</i></p>

	The tenderer may be asked to submit documentation demonstrating compliance with the requirements above.
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7. Contract provisions

Not defined for this product group.