



Environmental criteria for sustainable public  
procurement of

# Audiovisual Equipment

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# 1. Scope/definition

The Audiovisual Equipment product group includes:

- televisions
- beamers (projectors)

For larger monitors (>30 inch), see the criteria document for Hardware. In specific situations, a monitor may be preferable to a television (for example, situations in which the imaging element must be on for extended periods, must display static images, or must be connected to an operating system).

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

Products	CPV code
Television and audiovisual equipment	32320000-2
Projectors	38652100-1
Video projector devices	38652120-7

Excluded from the scope of this product group are:

- repair and maintenance of audiovisual and optical equipment (50340000-0)
- video recording or playback equipment (32333000-6)
- video recorders (32333100-7)
- video playback equipment (32333300-9)
- video players (32333400-0)
- recording and playback equipment for audio and video (32330000-5)
- microphones and speakers (32340000-8)
- audio and video equipment parts (32350000-1)
- intercom equipment (32360000-4)

# 2. Most significant environmental impacts

The following tables list the sustainability themes and describe the approach to each theme for the product group. The 'Approach' column presents a statement indicating the influence of sustainable purchasing and its criteria on the 'sustainability' of the theme. This column also includes a reference to any requirements, award criteria or points of attention/suggestions that may be useful in implementing the approach. The product group can also have an impact on other environmental themes but, for now at least, these are less relevant, of a much less significant level of concern or do not as yet have a suitable set of standard criteria.

Themes:	Approach:	No. of requirement/ Criterion
<b>Energy and climate</b> Energy consumption in the use phase of televisions and projector, with corresponding CO <sub>2</sub> emissions	<ul style="list-style-type: none"> <li>• Use of energy-efficient models</li> </ul>	ME1, ME2
	<ul style="list-style-type: none"> <li>• Use of low-power projectors</li> </ul>	ME3
<b>Supplies and raw</b>		AS1

<b>materials</b> Raw materials consumption in production of televisions and projectors	<ul style="list-style-type: none"> <li>Limit number of units</li> </ul>	
	<ul style="list-style-type: none"> <li>Use bulbs with a minimum life cycle</li> </ul>	ME4
	Mercury in televisions	ME5

### 3. Points of attention/suggestions

Devoting attention to the opportunities and possibilities for the most sustainable procurement possible in the preparation phase will lead to specifications that are more ambitious or which differ from the standard minimum requirements and award criteria set out in this document. The following table presents points for attention and suggestions for promoting sustainability in procurement within this product group.

No.	Points of attention/suggestions (AS)
AS1	<b>Choose multifunctional equipment</b> Many conference rooms are equipped with both a television and a monitor. Wherever possible, purchase a device that can function as both monitor and television.
AS2	<b>Use video conferencing</b> Consider purchasing video conferencing equipment to reduce the amount of employee travel.

### 4. Selection criteria

Not defined for this product group.

### 5. Technical specifications

Television:

No.	Technical specifications (ME)
ME1	<b>Television energy consumption</b> The televisions carry the highest possible energy efficiency label (Energy label A++). The energy efficiency of televisions is defined using an energy label.  <i>Explanation</i> Energy label A++ is the highest (most energy-efficient) classification currently available as a standard product. A++ corresponds to an EEI of <0.16. ( <a href="http://www.energielabel.nl/apparaten/televisie/">http://www.energielabel.nl/apparaten/televisie/</a> )  <i>Verification</i> The tender may be asked to produce documentation showing that the television is in compliance with an energy efficiency classification of label A++ in accordance with Regulation 2010/30/EU or better.

**Projectors:**

ME2	<p><b>Standby mode</b> The projector switches to standby mode automatically after 15 minutes of inactivity.</p> <p>Standby mode means a condition where the equipment is connected to the mains power source, depends on energy input from the mains power source to function properly and offers the following functions only, which may persist for an indefinite time:</p> <ul style="list-style-type: none"> <li>• reactivation function, or reactivation function and only an indication of enabled reactivation function, and/or</li> <li>• information or status display.</li> </ul> <p>(Source: ecodesign requirements for televisions regulation (2009/642/EC), <b>article 2.6</b>)</p> <p><i>Verification</i> The tenderer may be asked to demonstrate, using the functional specifications of the projectors, that the equipment automatically engages standby mode after 15 minutes of inactivity.</p>
ME3	<p><b>"On" power of projector</b> The power consumption of projectors (excepting ultra short throw projectors) in the "On" state (definition of state according to IEC62087:2008) is less than or equal to:</p> <ul style="list-style-type: none"> <li>• for light emission of <math>\Phi \leq 1750</math> lm: 180 [W]</li> <li>• for light emission of <math>\Phi &gt; 1750</math> lm: <math>180 W + 0.09*(\Phi-1750)</math> [W]</li> </ul> <p>Where <math>\Phi</math> is the light emission, in lm, measured in accordance with EN 61947-1:2002. The power consumption, in W, is determined in accordance with IEC62087; measurement method for televisions.</p> <p>An ultra short throw projector is defined as: "A projector that can project a 60-inch image or larger (measured diagonally) from under 18 inches away from the projection surface." (Source: Futuresource Consulting Ltd.)</p> <p><i>Explanation</i> An exception to this criterion is the ultra short throw projector. This is a projector that projects the image at a very wide angle from a very short distance away from the screen. This type of projector is frequently used in schools. Due to the greater angle, an ultra short throw projector is less energy-efficient than a conventional projector. However, because benefits to human health outweigh energy consumption, ultra short throw projectors are exempted from this requirement.</p> <p><i>Verification</i> The tenderer may be asked to demonstrate, using the functional specifications of the projectors, that the power consumption of the projectors meets or beats the standard set out above.</p>
ME4	<p><b>Minimum life cycle of projector bulb</b> Under conditions of normal use, the projector bulb has a minimum life cycle of 2500 operating hours.</p> <p><i>Verification</i> The tenderer may be asked to demonstrate, using the functional specifications of the projectors, that the bulbs have a minimum life cycle of 2500 operating hours.</p>
ME5	<p><b>Mercury in televisions</b> Televisions may not contain mercury.</p> <p><i>Verification</i> The tenderer may be asked to submit documentation demonstrating compliance with the criteria above. All products with a relevant EU Ecolabel are considered to be in compliance. Products with a Type 1 environmental label or environmental declaration answering to the listed criteria will be assumed to be in compliance. Other appropriate forms of documentation will be accepted.</p> <p>For an explanation of type I environmental label, see: <a href="http://www.nen.nl/NEN-Shop/Norm/NENENISO-140242000-en.htm">http://www.nen.nl/NEN-Shop/Norm/NENENISO-140242000-en.htm</a></p>

## **6. Award criteria**

Not defined for this product group.

## **7. Contract provisions**

Not defined for this product group.