

# Guidelines for Topten Public Procurers

## Computer Monitors

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### Why follow Topten criteria?

- Topten.eu/pro ([www.topten.eu/pro](http://www.topten.eu/pro)) is a European web portal helping buyers, professionals, public procurers and large buyers to find the most energy efficient products available in Europe. The products are selected and updated continuously, according to their high energy and environmental performances, independently from the manufacturers.
- The Topten criteria below can be inserted directly into tendering documents.
- All computer monitors displayed on [www.topten.eu](http://www.topten.eu) meet the criteria contained in these guidelines. Procurers can therefore use the website to check the availability and assortment of products currently on the market, which meet the [Topten selection criteria for Computer Monitors](#).
- Topten.eu/pro links to national partners Topten Pro websites and was developed under the Topten Act project, supported by the European Union through Horizon 2020 programme.

### How much can you save?

The category computer monitors, listed on [www.topten.eu](http://www.topten.eu), features models from 17 inch upwards and resolutions of Full HD and better. Considering the following assumptions, it is possible to achieve the savings indicated in the next table.

- Assumptions {
- Lifetime expectation: 5 years
  - Daily use: 8h in on-mode and 16h in sleep-mode
  - Electricity cost: 0.20 €/kWh

	Topten model	Inefficient model
Screen diagonal	24"	24"
Energy class	D	F
Resolution	Full HD	Full HD
Electricity consumption	33 kWh / year	48 kWh / year
Use cost (electricity in 5 years)	33 €	48 €
Savings in 5 years	<b>69% energy / unit ⇒ 15 € / unit</b>	

Differences in electricity consumption between inefficient and Topten models rise as the screen size enlarges, leading to higher energy savings and consequently greater money savings. As the example

above shows, total savings can reach almost 70% reduction of energy costs, and they should be multiplied by the number of units included in the tender.

The example is based on a typical monitor used in the office environment with full HD resolution (1,920 x 1,080 pixels) and a screen size of 24 inches.

Computer monitors with higher resolutions, for example, WQHD (2560 x 1440p) and 4K (3840 x 2160p), currently constitute for only approx. 20% and 10% of models offered on the market. Their main utilization is private use for gaming and entertainment. In the commercial space they are usually found with website designers, software programmers, and photo and video editors.

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## Procurement criteria

The following criteria can be inserted directly into tendering documents. The Topten selection criteria and the product lists are updated regularly. The newest versions are always available at [www.topten.eu/pro](http://www.topten.eu/pro).

**SUBJECT: HIGHLY ENERGY-EFFICIENT COMPUTER MONITORS**

### TECHNICAL SPECIFICATIONS

#### **1. EU Energy Label**

Computer monitors must have energy efficiency class E or better (efficiency index < 0.75), declared in agreement with the European Energy Label.

This applies to all monitors independent of their resolution and size.

#### ***Verification***

Bidders must supply the energy label and technical data according to EU Regulations No. 2019/2021 and No. 2019/2013.

ADDITIONAL INFORMATION

**Table 1: Overview of energy classes allowed on the European market**

	<b>Commission Delegated Regulation n° 2019/2013</b>	
	<b>Energy efficiency class</b>	<b>Energy efficiency index</b>
	A	$EEI < 0,30$
	B	$0,30 \leq EEI < 0,40$
	C	$0,40 \leq EEI < 0,50$
	D	$0,50 \leq EEI < 0,60$
	E	$0,60 \leq EEI < 0,75$
	F	$0,75 \leq EEI < 0,90$
	G	$0,90 \leq EEI$
	Note: The lower the value, the better the efficiency of the device	

**TCO 08 Certification**

With the introduction of the EU Energy Label for Computer Monitors in March 2021, a TCO Certification is no longer a mandatory requirement for bidders. Yet, we uphold the recommendation for procurers to consider a TCO Certification in their selection process to ensure an excellent ergonomic performance as well as to address other environmental criteria.

Products that are certified according to TCO Certified (Swedish Label) fulfil comprehensive social and environmental sustainability criteria that cover the product's full life cycle, from the product's manufacturer to its disposal.

To meet the latest standards, all products with the *TCO Certified Displays Generation 8* label can be accepted.

To increase savings and reduce environmental impact, procurers should evaluate life cycle costs when tendering for computer monitors. Thus, it is advisable to include in the tender a costing exercise - even if simple - for the product life cycle costs.

**Table 2: Example of a breakdown costs table, to be filled in by bidders**

	<b>Information details</b>	<b>Different unit costs in € (excluding tax)</b>	<b>Total cost in € (excluding tax)</b>
<b>Delivery</b>			
<b>Installation</b>			
<b>Use*</b>	Indicate power kW per 1000h x specified number hours per year in use x 5 years x n° units	Electricity cost**: 0,20 €/kWh	
<b>Maintenance</b>			
<b>Recycling and disposal</b>			

\* Example of how use costs can be determined. The variables for the costs calculation during the product life time can be stated by the procurer (according to the equipment replacement rate, its daily and annual use, etc.).

\*\* This figure is just an example. The procurer can use the average electricity price paid during the last 2 or 3 years, and also include subscription fee and taxes.

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## Advice and support

If you would like further assistance in using the information presented here in your own procurement actions or more information on [Topten Pro](#) contact your national Topten team (find it on [Topten.eu](#)).

The European Commission's [Green Public Procurement](#) website contains valuable legal and practical guidance together with procurement criteria for a range of commonly procured products and services.



The elaboration of these procurement guidelines has been supported by funding from WWF Switzerland. The sole responsibility for the content of the Topten procurement guidelines lies with the authors.



Topten ACT has received funding from the [European Union's Horizon 2020 research and innovation programme](#) under grant agreement n°649647. The sole responsibility for the content of the Topten Pro procurement guidelines lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither EASME, nor European Commission and project partners are responsible for any use that may be made of the information contained therein.