

EU Green Public Procurement (GPP) guidelines on road lighting

Many countries have included first generation of EU GPP criteria for road lighting as part of their guidelines. New technology and knowledge called for updated guidelines, that municipalities can take into account when purchasing lighting solutions.

Towards more resource-efficiency

- EU Green Public Procurement criteria for road lighting are not new – the first version was published in 2012. Updated GPP criteria on road lighting was published in December 2018.
- GPP is a voluntary instrument, but it has a key role to play in the EU's efforts to become a more resource-efficient economy.
- In 2018 new areas like glare got covered, and the fast increase in LED quality, efficiency, and lifetime expectancy as well as dimming and management systems, required more ambitious criteria.
- The purpose of the EU GPP criteria is to have updated, clear, and ambitious environmental criteria, based on a lifecycle approach and a scientific evidence base.

GPP for lighting

- Find the criteria here:
https://ec.europa.eu/environment/gpp/pdf/toolkit/181210_EU_GPP_criteria_road_lighting.pdf
- The criteria is published in all EU languages. Follow the link below in references – also to find guidance and technical background.

In the “planning and procurement | factsheet #5” you will find guidance on key aspects to achieve a good balance between energy efficiency, environmental benefits and quality of light.



Photo: Peter Liljenberg

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Criteria for public lighting

The GPP criteria are divided into:

- ▶ **Core criteria** – these are designed for easy application of GPP, focusing on the key area(s) of environmental performance of a product and aimed at keeping administrative costs for companies to a minimum.
- ▶ **Comprehensive criteria** – which take into account more aspects or higher levels of environmental performance, for use by any authorities that want to go further in supporting environmental and innovation goals.
- ▶ For each criteria there are set standards for **verification** and by including verification in the tender, the municipality are better ensured to actually get what is promised as well as having the possibility to adjust in the process.

Green Public Procurement

The technical specifications include:

- Luminaire efficacy, Dimming control compatibility, Minimum dimming performance, Annual Energy Consumption Indicator (AECI), Metering, Power factor
- Ratio of Upward Light Output (RULO) and obtrusive light, Annoyance, Ecological light pollution and star visibility
- Provision of instructions, Waste recovery, Product lifetime, spare parts and warranty, Reparability, Ingress Protection (IP) rating, Labelling of LED luminaires



Quality measurements can also be carried out on road level. DOLL Quality Lab in Denmark has developed a universal roof rack with a range of sensors. Mounted on a car it enables driving through stretches of roads or entire cities, while making quality measurements of street lighting.

Verification

- ▶ For each topic, the guidelines recommend a way to ensure you get what is promised – make sure to include the verification parameters.
- ▶ Random testing is an important tool to include in the tender. E.g., getting a number of luminaires tested in an independent quality lab and getting verification of luminaires against the manufacturer's datasheet. Both before entering the contract and on a random choice of luminaires from each delivery. It can be included in the procurement and carried out, and paid for, by the producer, or it can be the owner using an independent laboratory.

Quality of LED, drivers etc. is not always the same as specified when the full delivery of luminaires arrive – therefore knowing there will be random testing makes it less interesting to deliver another quality. It will add a little to the cost in the short term, but not in the long term, where the LED luminaires should last.

References:

- 1 The EU GPP criteria in all EU languages (search for road lighting and traffic signals): https://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm.
- 2 The procurement practice guidance document: https://ec.europa.eu/environment/gpp/pdf/190125_Road_lighting_guidance.pdf
- 3 The EU GPP technical background report: https://ec.europa.eu/environment/gpp/pdf/tbr/190125_JRC115406_eugpp_road_lighting_technical_report.pdf