

# National Green Public Procurement Guidelines



## Street Lighting and Traffic Signals

National target	<b>2012</b>	<b>2013</b>	<b>2014</b>
	10%	20%	30%

Date	Version No.	Change
Jun 2012	1.1	Minor revision of text
Oct 2011	1.0	First national guidelines for Street Lighting and Traffic Signals

### Definition:

*This product group criteria are applicable to*

**Street Lighting** defined as “Fixed lighting installation intended to provide good visibility to users of outdoor public traffic areas during the hours of darkness to support traffic safety, traffic flow and public security”

**Traffic Signals** defined as “Red, yellow and green signal lights for road traffic with 200mm and 300mm roundels. Portable signal lights are specifically excluded from the scope of this European Standard.”

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### Applying GPP criteria

The National Action Plan for Green Public Procurement ([www.gpp.gov.mt](http://www.gpp.gov.mt)) requires **all contracting authorities** to consider and reflect the parameters (GPP criteria) stipulated below in the tenders for products falling under this product group. As a minimum requirement, these parameters must be included in technical specifications / terms of reference / bills of quantities (whichever is applicable, depending on whether the contract is for works, services or supplies) and in the corresponding selection criteria. These parameters may also feature as part of the subject matter of the contract, and, if the Most Economically Advantageous Tender (MEAT) procedure is used – in the award (evaluation) criteria

Subject Matter	<p>“Subject Matter” means the title of the tender - i.e. a short description of the product, works or service to be procured.</p>
Technical Specifications	<p>“Technical specifications”, in the case of public works contracts means the totality of the technical prescriptions contained in the tender documents, defining the characteristics required of a work, material, product or supply, which describes in a manner that fulfils its intended use by the contracting authority.</p> <p>“Technical specifications”, in the case of public supply or service contracts, means a specification in a document defining the required characteristics of a product or a service,</p> <p><i>Technical Specifications must be requested in accordance with regulation 46 of LN 296/2010.</i></p>

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Award Criteria	<p>“Award Criteria” (Variants) are criteria the contracting authority will consider when evaluating the quality of the different bids which meet the minimum requirements. These are only applicable using the Most Economically Advantageous Tender (MEAT) procedure for evaluation and their selection must be related to the subject matter of the contract. These criteria shall be included in the contract documents or, in the case of a competitive dialogue, in the descriptive document, indicating all the criteria which are to be applied in the award of the contract. Relative weighting must be indicated with a minimum total of 15% for the GPP criteria.</p> <p><i>Variants are regulated under regulation 47 of LN 296/2010.</i></p>
Performance Contract Clauses	<p>“Performance Contract Clauses” may lay down by contracting authorities, provided that these are compatible with Community law and are indicated in the contract notice or in the specifications. The conditions governing the performance of a contract may, in particular, concern social and environmental considerations.</p> <p><i>Contract Performance Clauses are regulated under regulation 31 of LN 296/2010.</i></p>
Selection Criteria	<p>“Selection Criteria” focus on the company’s ability to perform the contract.</p> <p><i>Selection Criteria are regulated under 51 and 52 of LN 296/2010.</i></p>
Verification	<p>“Verification” means the proof required from the supplier that the Specifications are met by the product or service.</p>
<p><b>Note:</b> The standards, regulations, legislations and directives referred to in these guidelines may have been revised in which case procurers must refer to the latest updates and versions.</p>	

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## Street Lighting

### 1.1 Subject Matter

Purchase of high efficiency lamps

### 1.2 Technical Specification

High Pressure Sodium lamps with a colour rendering index Ra 60 shall have at least the following lumen efficacy

Nominal Lamp Wattage (W)	Rated Lamp Efficacy (lm/W) – Clear	Rated Lamp Efficacy (lm/W) – Coated
$W \leq 45$	$\geq 60$	$\geq 60$
$45 < W \leq 55$	$\geq 80$	$\geq 70$
$55 < W \leq 75$	$\geq 90$	$\geq 80$
$75 < W \leq 105$	$\geq 100$	$\geq 95$
$105 < W \leq 155$	$\geq 110$	$\geq 105$
$155 < W \leq 255$	$\geq 125$	$\geq 115$
$255 < W \leq 605$	$\geq 135$	$\geq 130$

High Pressure Sodium lamps with Ra > 60 shall meet the efficacies indicated below for metal halide lamps.

Lamps that meet the above specification shall be purchased for existing street lighting installations where the existing installation permits the use of lamps that meet these standards. All new installations shall include fittings for lamps that meet the above specification.

**Verification:** The bidder shall provide the technical specification of the lamp or a written declaration to demonstrate this criterion is met.

Metal Halide lamps and High Pressure Sodium lamps with Ra > 60 shall have at least the following lumen efficacy:

Nominal Lamp Wattage (W)	Rated Lamp Efficacy (lm/W) - Clear	Rated Lamp Efficacy (lm/W) - Coated
$W \leq 55$	$\geq 60$	$\geq 60$
$55 < W \leq 75$	$\geq 75$	$\geq 70$
$75 < W \leq 105$	$\geq 80$	$\geq 75$

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105<W≤155	≥80	≥75
155<W≤255	≥80	≥75
255<W≤405	≥85	≥75

Lamps that meet the above specification shall be purchased for existing street lighting installations where the existing installation permits the use of lamps that meet these standards. All new installations shall include fittings for lamps that meet the above specification.

**Verification:** The bidder shall provide the technical specification of the lamp or a written declaration to demonstrate this criterion is met.

Ballasts for high intensity discharge lamps shall have the following efficiency

Nominal Lamp Wattage (W)	Minimum ballast efficiency ( $\eta_{ballast}$ ) %
P<30	65
30<P≤75	75
75<P≤105	80
105<P≤405	85
P≤405	90

Where:

Ballast efficiency ( $\eta_{ballast}$ ) means the ratio between the lamp power (ballast output) and the input power of the lamp-ballast circuit with possible sensors, network connections and other auxiliary loads disconnected.

**Verification:** The bidder shall provide the technical specification of the ballast or a written declaration to demonstrate this criterion is met.  
Note: Standards covering the measurement of efficiency of HID ballasts are currently in preparation and will be a requirement at stage 3 of Regulation 245/2009.

### 1.3 Award Criteria

Where metal halide lamps are identified as the most suitable lamp type, additional points shall be awarded for those metal halide lamps that meet the following rated luminous efficacies:

Nominal Lamp Wattage	Rated Lamp Efficacy (lm/W) – Clear lamps	Rated Lamp Efficacy (lm/W) – Frosted lamps
W≤55	≥70	≥65
55<W≤75	≥80	≥75
75<W≤105	≥85	≥80
105<W≤155	≥85	≥80

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155<W≤255	≥85	≥80
255<W≤405	≥90	≥85

**Verification:** The bidder shall provide the technical specification of the lamp or a written declaration to demonstrate that this criterion is met.

Additional points shall be awarded for lamps that meet the following lamp lumen maintenance factors (LLMF) and lamp survival factors (LSF):

Burning Hours	2000	4000	8000	16000
LLMF	0.98	0.97	0.95	0.92
LSF	0.99	0.98	0.95	0.92

**Verification:** The bidder shall provide the technical specification of the lamp or a written declaration to demonstrate this criterion is met.

## 1.4 Contract Performance Clauses

The following product information shall be provided with the lamps to be used in street lighting:

- Nominal and rated lamp wattage.
- Nominal and rated lamp luminous flux.
- Rated lamp efficacy at 100 hours in standard conditions (25°C). It shall be stated in a conspicuous manner that the power dissipated by auxiliary equipment such as ballasts is not included in the power consumed by the source.
- Rated lamp Lumen Maintenance Factor at 2000h, 4000 h, 6000 h, 8000h, 12000 h, 16000 h and 20000 h (up to 8000h only for new lamps on the market where no data is yet available), indicating which operation mode of the lamp was used for the test if both 50 Hz and High Frequency operation are possible.
- Rated lamp Survival Factor at 2000h, 4000 h, 6000h, 8000h, 12000 h, 16000 h and 20000 h (up to 8000h only for new lamps on the market where no data is yet available), indicating which operation mode of the lamp was used for the test if both 50 Hz and High Frequency operation are possible.
- Lamp mercury content as X.X mg.
- Colour Rendering Index (Ra) of the lamp.
- Colour temperature of the lamp.

**Verification:** The bidder shall provide a copy of the product's information as evidence that this criterion is met.

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## Traffic Signals

### 2.1 Subject Matter

Purchase of energy efficient Light Emitting Diode (LED) traffic signals

### 2.2 Technical Specification

100% of traffic signal purchases shall be LEDs. This includes the installation of new traffic signals and the retrofitting of existing traffic signals with LEDs. Where contracting authorities are installing or upgrading traffic signals they should include the following minimum requirements in tender documentation.

Module Type	Maximum Wattage (74°C)	Nominal wattage (at 25°C)
300mm Red Ball	17	11
200mm Red Ball	13	8
300mm Red Arrow	12	9
300mm Green Ball	15	15
200mm Green Ball	12	12
300mm Green Arrow	11	11

The wattage requirements in the table above are to be met by the individual module, not the traffic signal heads. These levels include power demand from the LED power circuit.

**Verification:** The bidder shall provide the technical specification of the LED or a written declaration to demonstrate this criterion is met.