

Quick-check lighting refurbishment: HALLS

Halls used for production, logistics, sports, events

In municipalities and the business sector, there are a large number of halls - larger buildings (or parts thereof) with high ceilings used for a variety of purposes including sports, events, production, logistics, sales, etc. Due to high ceilings, costs for lamp replacement are often higher. In production halls, the quality of the lighting also has a significant impact on productivity. Many halls have long operation hours, resulting in high electricity costs if inefficient lighting is used.

The costs for LED lighting for halls have significantly decreased in recent years. In many cases, this has made refurbishment economically feasible.

This quick-check aims to support companies and institutions in the first steps towards refurbishing lighting systems in halls. It helps assess whether lighting refurbishment could be carried out economically and whether "energy performance contracting" might be a suitable option. The quick-check was developed in the context of the European "Streetlight-EPC" project.

OK & KO criteria for lighting refurbishment with EPC:

Positive / negative factors	YES (OK criteria)	NO (KO criteria)
Lamps/installations are operational, but in bad condition		
Lamps/installations are older than 10 years		
"Phasing out" lamps installed (High Pressure Sodium, High Pressure Mercury lamps)		
Total installed capacity of the lighting system to be renovated is more than 10 kW		
The average annual maintenance costs are over 15 Euro per lighting point		
Operating time is above 3600 hours/year or Operating time is on average at least 10 hours/day		
There is no light reduction during the night		

If most of the answers are positive, the "Data Collection Sheet" on the next page can be completed.

What is EPC?

Energy Performance Contracting (EPC) is a contractual agreement between a beneficiary (e.g. a municipality) and a provider of an energy efficiency improvement measure, a so-called "Energy Service Company" (ESCO). The ESCO finances and implements energy efficiency investments - for example the refurbishment of a street lighting system to LED technology or the refurbishment of indoor lighting systems. The annual energy savings are used to cover the investment and capital costs. After the end of the contract, the client benefits from the energy and cost savings.

EU-Project Streetlight-EPC

A project funded by the Intelligent Energy Europe Programme was launched in 2014 with the objective of triggering the market uptake of EPC through lighting refurbishment projects. The project, called "Streetlight-EPC", creates demand and supply for EPC projects in 9 regions through regional EPC facilitation services. These services provide comprehensive support to both lighting operators, such as municipalities or companies, and ESCOs. The project team includes 9 regional agencies/organisations, which provide the EPC facilitation services, 9 municipalities and a European network.

Further information: www.streetlight-epc.eu



LIGHTING REFURBISHMENT HALLS – DATA COLLECTION SHEET

To allow a first assessment of whether EPC is a suitable option in your case, the following data needs to be collected.

	Unit	Your lighting system
Type of project		
Type of hall (production, logistics, sports, events, other)		
Age of lighting installation		
Year of last comprehensive refurbishment		
Number of lighting points	number	
Most frequent lamp type*		
Estimate number of lamps of this type		
Second most frequent lamp type*		
Estimate number of lamps of this type		
Height of luminaires		
Typical distance between lighting points		
Condition of light poles/support structures (optional)	good/bad	
What type of ballasts are used?		
Is daylight used in the hall? (little or significant amount)		
Total installed capacity of the project	kW	
Total annual electricity consumption of the project	kWh/year	
Total annual electricity costs (specify including or excluding all non-refundable taxes)	Euro/kWh	
Total annual maintenance costs or annual maintenance cost per lamp	Euro/year	
Typical operation time [from-to on how many days/week] or total operating hours/year	from-to / hours/year	
Periods of dimming/switch-off		
Any problems with the present lighting system?		
Special requirements for the lighting system? (e.g. concerning security, brightness, colour rendering, light pollution)		
Municipality/company/institution		
Name of contact person		
e-mail		
telephone		

*HPM: High Pressure Mercury lamps; HPS: High Pressure Sodium lamps; LPS: Low Pressure Sodium lamps; MHL: Metal Halide Discharge lamps; CFL: Compact Fluorescent lamps; FL: Fluorescent lamps; LED: Light-Emitting-Diodes

These data can be discussed with an EPC facilitation service (if available in the respective country) to provide guidance on the next steps. Otherwise, municipalities, companies or institutions can work directly with ESCOs or specialised service providers.



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