

PRESS INFORMATION

Energy-efficient modernisation of streetlighting



Gear tray technology allows the rapid refurbishment of Siteco outdoor luminaires

Around one third of all outdoor lighting systems according to ZVEI surveys are equipped with inefficient and outdated technology, partly still originating from the 1960's. 2.7 billion kilowatt hours (kWh) could be saved in this regard with a transition to energy-efficient streetlighting, along with 1.6 million tons of carbon dioxide and costs totaling 400 million euros (0.15 euros/kWh). Thanks to their gear tray technology, Siteco outdoor luminaires can be rapidly modernised and adapted to efficient operation with state-of-the-art light sources. Why wait then for the ban on mercury vapour lamps? Immediate refurbishment is surely the better option, saving up to 45% of energy costs in the process.

With the coming into effect of the EBPG (Energy Operated Products Legislation) in March 2008, the so-called Eco Design Guideline 2005/32/EG has become German law. As an important component for environmental protection and resource-efficient manufacturing, it specifies minimal requirements for energy-consuming products. In the future, non-efficient lamps will be phased out across Europe, meaning that their operation will no longer be permissible.

For mercury vapour lamps, light sources that compared to modern lamps such as high pressure sodium vapour lamps, metal halide lamps and compact fluorescent lamps are characterised by a poor ratio of luminous efficacy to energy consumption (lumens/watt), phasing out will occur in 2015 at the latest. The same is true for high pressure sodium vapour plug-in lamps. Already in 2012, less efficient high pressure sodium vapour lamps will be removed from the market while high quality types will be maintained.

Replacing gear trays and saving energy

Towns and local authorities in Germany in the near future will be liable to modernise or replace at least 30% of their streetlighting - a tough job with significant investment costs. As well as outdated lamp technology, inefficient lighting and lack of lighting management push costs for lighting systems

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upwards. Especially in small towns and villages, electricity costs for streetlighting make up to 50 percent of total energy requirements. The reason for this is in most cases outdated systems.

Modernisation of streetlighting could save enormous quantities of energy and carbon dioxide, and at the same time significantly improve the quality of light. This can be quickly and simply implemented thanks to Siteco gear tray technology, the core of Siteco outdoor luminaires being the gear tray, accommodating all electrical components required for operation of the light source. Electrical equipment varies according to the type of lamp and wattage. Each gear tray can be simply and quickly replaced, usually without use of tools.

As an important precursor, Siteco has consistently implemented the principle of the replaceable gear tray in its outdoor lighting programme. This has meant that existing systems can be refurbished simply with a single movement of the hand for equipping with energy-efficient light sources.

A future-fit, immediate solution

Whether only the gear tray is to be replaced or the complete luminaire exchanged for modernisation of a lighting system depends on its age. Replacement of the gear tray makes sense with high-grade outdoor luminaires not older than 25 years, and if they are to be used in the years to come. If wide-ranging road construction activities are to be carried out or if the luminaires are low-cost models, a replacement of the complete luminaire may prove to be the better choice. Outdoor luminaires older than 25 years are usually technically so outdated that they should be completely replaced.

The dual factors of energy and efficiency have been self-evident criteria for Siteco with the development and implementation of lighting solutions. Gear tray replacement offers an effective immediate solution to implement energy-efficient lamp technology, and as such does not just save costs but also aids environment protection. Alternatively, according to task and project demands, the luminaire heads can also be completely replaced. This in turn enables in addition to energy savings the installation of state-of-the-art and perfectly matched lighting technology, for example highly efficient LED technology.