

# Save energy with smart lighting

Home » News & insights » How saving energy with smart lighting works

## Reduce energy consumption and operating costs

Precious public lighting installations have been built in recent decades. These are now being replaced by or modified with LED.

A lot of capital has been invested. About 1,500 to 2,000 euros per lighting column. For a municipality with 30,000 inhabitants, the value of the street lighting area is between 9 and 12 million euros. This investment can be earned back by using smart lighting technology.



## Know how

### Motivations

Reasons and motivations related to the purchase and use of smart lighting are discussed in "Know how".

## KPIs and requirements for the public lighting installation

In view of the considerable investment, it is not surprising that there are many requirements when it comes to the public lighting installation. For example, malfunctions are not desirable, because if a lamp is defect, the street doesn't look nice and people may experience an unsafe feeling.

The classic KPI for light towers is comparable to a machine in a factory; proper functioning is important and remote control and management of the machinery is a must. The same applies to public lighting. It is important to deal with the installation as cost-efficiently as possible.



*'Expensive public lighting requires maximum uptime and minimum operational costs'*

## Save energy with smart LED

A business case for replacing public lighting often shows an energy saving of 65% compared to conventional lamps, when they are replaced by LED and equipped with smart lighting technology. Half of this saving comes from the use of LED because LED consumes about half the amount of energy at the same light level. A LED lamp also offers more options for dimming. Energy consumption decreases in proportion to the lighting level, so when 50% is dimmed, energy consumption is also reduced by half.

## Operational cost benefits in remote control

In addition to lowering energy costs, it is possible to reduce operational costs with smart lighting installations. The dashboard of the management and control software shows remotely which lighting is defective and what causes it. This makes driving inspection rounds a thing of the past.

In case of a defect the contractor knows in advance what the problem is with the street lighting. Because of this he can bring the right equipment and parts straight away and solve the fault in a shorter amount of time. These are concrete savings in time and money. In addition, the municipality receives fewer reports and complaints from residents, which reduces the workload at the customer contact center.



## Maximum benefit with large-scale application

Many municipalities have already gained experience with smart lighting. Usually first in a small area to get acquainted. In order to realize the advantages as explained earlier, it is important to work towards the large-scale use of smart lighting technology.

The benefits of large-scale use are immediately noticeable. Firstly, because the energy savings go up with the number of light poles that you have actually made smart. This is comparable to insulating a house. Who only insulates the attic room does not save much energy. For savings that really matter, the whole house needs to be insulated.

Operational cost advantages, such as the elimination of the inspection rounds, will only be fully exploited once all malfunctions can actually be monitored online. Only then the work processes concerning the maintenance and management of public lighting can be applied in a modern way and standardised within the municipality.