

Opportunities for energy savings

The example of street lighting



Street lighting

Murrhardt and districts

- total: 2,000 lamps
- Annual electricity costs : 100,000 €
- Annual electricity consumption : 500,000 kWh
- maintenance : 17,000 €

Street lighting

Under the current electricity concession contract - including street lighting - the associated power grid and the light poles belong to Süwag Energy Ltd (concessionaire and electric utilities). The lights and bulbs (lamps) as well as the lines in the poles belong to the city Murrhardt that holds the safety obligations under the Highways Act Baden-Württemberg (general lighting requirement). This may be understood as a public-private partnership (PPP).

The current license was reassigned and after the Energy Industry Act (EnWG) street lighting should not be longer included in the concession contract. Under the old contract from 1992 this was still possible.

Therefore, various models are currently negotiated by the cities and towns (represented by an association) with the Süwag as a power source.

1. Acquisition of street lighting with the masts and the net by the city or municipality.
2. Conclusion of a lighting treaty which regulates the maintenance of street lighting and the power supply as a service with the appropriate fee.

The output is open. Of course it's about the money!

Typs of street lighting

**80 % Natriumdampf lampen /
sodium vapor lamps**

**15 % Leuchtstoff lampen /
neon tubes**

**5% LED-Leuchten /
LED lamps**

switching times of municipal street lighting

Murrhardt

Thorough roads,
main roads
and town centre

no switch off

Minor roads
and residential areas

switch off
from 01.30 AM until 5 AM

switching times of municipal street lighting

Murrhardt dictricts

- Fornsbach and Kirchenkirnberg

Main crossroads no switch off

all other areas switch off
from 01:30 AM until 5 AM

- Small hamlets

switch off
from 01:30 AM until 5 AM

Conversion to LED bulbs

Why LED ?

- According to the EU directive, all bulbs with low energy efficiency, for example, mercury vapor lamps will disappear from the market in the near future.
- Because of their high energy efficiency and durability LED lamps are the light source of the future
- Climate-friendly and sustainable by CO2 reduction and material retention.

Projects street lighting

Conversion to LED technology

- All construction projects in road and car park are equipped with LED bulbs. Good experience with lighting of SITECO (Osram) Model Streetlight. Long-term supply of spare parts
- Upgrading the lighting of the main thorough roads of 110 W (tube) and 2x 36 W to 30 W LED NAV.

Projects street lighting

Conversion Berliner Straße and Hörschbachstraße

Exchange of 75 lamps (110 W). Poles remain.

Conversion to 30 watt LED equivalent illumination
total cost 50.000 €

- Price per LED lamp: 400 €
- Electricity costs now: 7,500 €/a
- Electricity costs after conversion: 1.320 €/a
- amortization : 8 years
- CO2 savings: app. 15 tons/a

Projects street lighting



Lighting concept Fornsbach station

Day



Night



Lighting concept Fornsbach station

Day



Night



Street lighting town centre



LED illuminated gable at town hall



Christmas illumination (LED) from 1. Advent until January 6th

LED illuminated gabletown centre



Illumination of the town centre during the Advent and Christmas season with light bulbs.

Costs Christmas illumination

- Maintenance of the gable illumination and installation of the illumination effects: 2,000 €/a
- Electricity costs Christmas illumination: 500 €/a
- Mostly 8W / lamps

Luminous elements town centre



Sodium vapor – street lighting



Fritz-Schweizer-Straße new LED street lighting



New street lighting main road into Fornsbach

