



First municipality in the south of Portugal to convert street lighting to LED

Aljustrel Municipality

GOALS

Aljustrel municipality is committed to preserve and protect the environment, as well as promoting energy efficiency by investing into the conservation, protection, promotion and development of natural and cultural heritage.

The focus on the environment and in the good governance of public finances inspired the municipality to implement a technology with less environmental impact in street lighting.

The replacement of traditional lighting system with LED technology luminaires, covered all the parishes of the county.

Project implemented in 2017.



TESTIMONY

"With this project, the municipality benefits in the medium / long term from a significant savings on the monthly energy consumption and reinforces the security and comfort of the approximately ten thousand inhabitants, improving the quality of street lighting with reduced cost. The two main benefits to be highlighted are the decarbonization, with the reduction of CO₂ emissions, and the budget balance optimization by saving costs.

The significance of the entire county upgrade, including all urban settlements, which will benefit from these LED luminaires implementation and, more importantly, of the greenhouse gas emissions reduction is immense but the budget balance achieved with the reduction of 2/3, of the monthly energy invoice, is also not negligible. The investment will be fully covered with the revenue collection.

The new invoice represents a decrease in about 360 thousand euros to 120 thousand euros per year. After the operational renting agreement associated with this financial investment operation has been settled, the municipality still collects about 300-400 thousand euros of revenue over the course of these 8 years.

It is therefore an environmental and management gain, which led us not to hesitate to replace traditional lighting system to LED luminaires, bringing an excellent result."

Nelson Brito
Mayor of Aljustrel Municipality

SOLUTION INSTALLED

The total street lighting project upgrade to LED, came about two years after a pilot project to replace traditional street lighting - mercury vapor and high-pressure sodium vapor - by LED luminaires in several points of the village of Aljustrel.

In total, 3.328 traditional luminaires were replaced, 2.328 are road luminaires (ARQUICITY R1 EFFICIENCY) and the remaining 998 are decorative (classic: HAMLET, urban: OCTANS and ORION), representing 70% and 30% of total installed luminaires, respectively.

The total investment of more than 600 thousand euros in the installation of this advanced luminaire system will represent an average monthly net saving of around 6.800 euros, corresponding to approximately 655 thousand euros at the end of the project.

The replacement of traditional street lighting by LED technology luminaires represents the reduction of energy consumption and minimization of environmental impact.

renting 8 years	total nr. luminaires 3.328
total nr. inhabitants ¹ 9.240	more SECURITY
consumption reduction 100 GWh	less ENVIRONMENTAL IMPACT

BENEFITS

This project updates the street lighting system of the entire municipality almost at zero cost, through the savings generated, with an equipment guarantee of 10 years, and a lifespan of 15 to 20 years.

The implementation of the total street lighting conversion to LED, will enable the municipality of Aljustrel to:

- Improve the quality of light with a greater sense of visual comfort;
- Increase a sense of security and well-being, of about 10.000 inhabitants;
- Raise energy efficiency levels;
- Have less energy consumption without any initial investment;
- Reduce the monthly energy invoice;
- Minimize the environmental impact - reduction of CO₂ emissions with a great contribution to decarbonization.



investment
600 M€

annual savings
240 M€

total savings
> 650 M€

energy consumption
savings
71%

CO₂ emissions
reduction
28K ton

ARQUILED

Arquiled is a general LED lighting manufacturer, specialized in professional luminaires for street lighting, systems and services.

Headquartered in Mora-Alentejo, is a Portuguese industrial company, pioneering the market since 2005, that designs and develops its own products and solutions.

ARQUILED is committed to develop smart management solutions focused on reducing energy consumption and decarbonization, contributing to sustainable urban clusters.

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¹ Source INE (Censos 2011), Portuguese National Institute of Statistics.