



Energy Efficiency Management with LED Street Lighting One of the first major ESCo projects in Portugal

Vouzela Municipality

GOALS

In 2015, the municipality of Vouzela invested in a pilot project of 500 LED luminaires to convert from traditional technology to LED technology.

However, the replacement for LED, in all the lighting fixtures in the municipality, was extremely relevant, seeking to adopt a model that did not bring major financial costs, which would guarantee maintenance and technical assistance and, in a way, it would be possible to pay with the savings generated during the contractual period.

The main purposes that moved the Municipality to move forward with this project are based essentially on:

- ending the nighttime blackouts motivated by the reduction of energy costs;
- modernize and improve the quality of street lighting - convenience and quality of life for residents and visitors;
- implement an effective energy efficiency policy, betting on LED technology as it is more environmentally friendly, with less consumption and less CO₂.

Project implemented in 2018.

TESTIMONY

"This project will bring significant benefits to the municipality, either by the evident reduction in costs and without the need for investment by the municipality, or in the modernization and improvement in the quality of street lighting.

This way, there will be no more nighttime blackouts, a measure taken by the municipality to reduce electricity costs.

The replacement of traditional technology luminaires with LED luminaires, will also bring environmental gains, with the reduction of greenhouse gas emissions estimated at 382 tons of CO₂ per year, realizing the design of a more ecological municipality and environmentally responsible that we have tried to fulfill."

Rui Miguel Ladeira Pereira
Mayor of Vouzela



INSTALLED SOLUTION

6.764 luminaires were replaced in the municipality of Vouzela, resulting in a very significant reduction in street lighting costs, without any investment by the municipality. The project covers the nine parishes of the municipality with more than 10.500 inhabitants.

The cost of street lighting was around 290 thousand euros a year. The replacement of traditional lighting with LED luminaires allows for a reduction in consumption of around 70%.

In fact, adding the costs with the provision of the ESCo service and the energy costs, the municipality will obtain an annual saving of 72.000 euros (savings of 35%), that is, about 6.000 euros / month. During the 12 years of the contract, the total net savings amount to 1.159 million euros.

In addition, it will also reduce consumption by 1.414.983 kWh, reflected in the reduction of CO₂ emissions by 382 tons / year, making the municipality of Vouzela more ecological and environmentally responsible.

ONE OF THE FIRST BIG ESCo PROJECTS OF LED PUBLIC LIGHTING

Ferrovial Serviços, in a technological partnership with ARQUILED, participates in this energy efficiency management project, which is one of the first in Portugal. It will not only bring very significant advantages in terms of cost reduction, but also in modernizing and improving the quality of public lighting.

ARQUILED TECHNOLOGICAL PARTNERSHIP

Of the total built-up park of 6.764 luminaires, 6.615 are road luminaires (543 ARQUICITY R1 EFFICIENCY; 6.072 ARQUICITY S1) and the remaining 149 are decorative (100 ARQUIHISTORIC HAMLET; 40 OCTANS).



ADVANTAGES

The replacement of traditional technology luminaires with LED technology luminaires brings a series of benefits, meeting the purposes of the municipality.

The reduction in costs with public lighting is significant and without any investment on the part of the municipality - the investment is entirely supported by ESCo² and a monthly rent is paid for the service provided.

On the other hand, it will make it possible to end the nighttime blackouts, a measure taken by the municipality in order to reduce the energy bill, contributing to the increase in the quality of life of the inhabitants.

In this way it will also be able to achieve the design of a more ecological municipality that contributes to minimize the environmental impact, with the CO₂ emissions reduction.

- Cost reduction from the first month - project with immediate savings.
- Quality of service guarantee - associated with the maintenance contract, thus ensuring that savings are maintained throughout the contract.
- Modernization and improvement of the quality of street lighting.

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 Savings data provided by Ferrovial.

² ESCo - Energy Services Company.