MOITA MUNICIPALITY

CASE STUDY











LED street lighting: more efficient and environmentally friendly

GOALS

The replacement of traditional street lighting with LED technology lighting, throughout the municipality of Moita, translates into substantial savings in the municipality's energy consumption, whose costs represented a considerable weight in the budget.

The implementation of this project allows estimated savings of 650 thousand euros per year, obtained through the reduction of energy consumption.

Considering the economic and environmental gains, the bet on innovation and energy efficiency allows, not only, the improvement of the municipality's infrastructures by optimizing the levels of street lighting, reinforcing the feeling of security of the citizens, but also, the substantial reduction in CO₂ emissions.

TESTIMONY

"These measures imply an abysmal improvement in the quality of public lighting and energy efficiency. The improvement in the provision of public services reinforces the feeling of security, but also of protecting the environment.

In the short term, we will have this great impact on the streets of the county." $\;$

Rui Garcia Mayor of Moita Municipality

INSTALLED SOLUTION

STRET LIGHTING QUALITY AND GREATER EFFICIENCY

The replacement of traditional street lighting with LED technology lighting, throughout the county, brings environmental benefits by reducing CO₂ emissions, making it possible to reduce power consumption by approximately 70% and increasing substantially the levels of lighting quality.

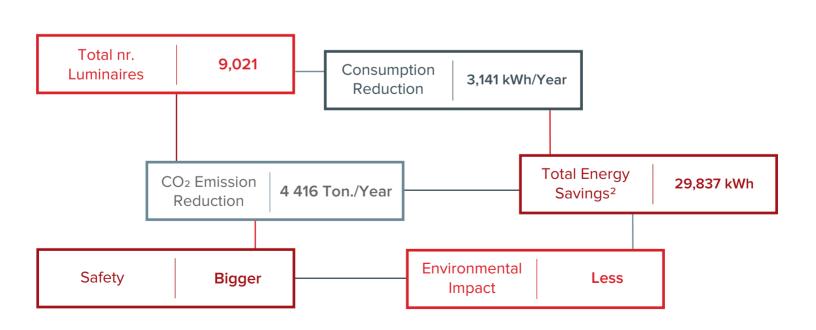
The project was developed by Ferrovial Serviços, as an ESCo¹ and Arquiled, as a technological partner, to equip the Municipality of Moita.

The energy efficiency management contract, to implement and improve energy efficiency measures in the "Street Lighting System", is of 10 years length. In addition to the upgrade, the performance of an annual measurement and verification report of the new system, will make it possible to evaluate the earned savings, between 60% and 70% energy consumption reduction, which represents about 650 thousand euros per year in the municipal budget.

Replacement of **9,021 traditional luminaires** with LED technology luminaires from Arquiled:

- ▶ 7 045 **SCULPTOR** (road luminaire);
- ▶ 1907 **ORIONT** (urban luminaire);
- 69 OCTANS (urban luminaire).





¹ ESCo – Energy Service Company.

² Total estimated value at the end of the 10-year contract, according to data provided by Ferrovial Serviços.



The replacement of traditional luminaires with luminaires with LED technology, presents a set of benefits that meet the objectives of the municipality.

The street lighting costs' reduction is significant and without any investment from the municipality – has the investment is entirely supported by the ESCo and a monthly rent is paid for the service provided.

The benefits of implementing this project are not only environmental and economic, it is estimated that the new luminaires will also bring greater comfort to the urban environment, by improving quality lighting levels and the consequent feeling of greater security, in this municipality with more than 66,000 inhabitants.

- Cost reduction from the first month project with immediate savings.
- Service quality assurance associated with the maintenance contract, thus ensuring that savings are maintained throughout the contract.
- Minimizing the environmental impact, with a reduction in CO₂ emissions.
- Improvement in the quality of public lighting, with greater visual comfort.
- More safety for users on public roads.

ARQUILED

BRIGHT NEW FUTURE

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.

CONTACTS

Arquiled, Projectos de Iluminação, S.A. T: +351 217 971 964 E: sales@arquiled.com

Arquiled Colombia S.A.S T: +571 756 00 96 E: info@arquiled-light.com.co

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