

Realised project street lighting: Municipality of Cabanillas, North/Central Spain

Project background and objectives

With a population slightly below 1,000 inhabitants, the municipality of Cabanillas decided to evaluate an energy efficiency project in their streetlight. Several approaches for the project installation and financing were analysed, the energy performance contracting model (EPC) was finally selected. The selection of the ESCO was preceded by a public tender. The main criteria were the renovation and improvement of the outdoor lighting installations with maximum energy efficiency and reduction in the maintenance cost.

The EPC contract was signed for a period of 14 years. The renovation of the old street lighting system was to be carried out in the first year of the contract.

Project description

The main project target was decided to be the improvement of the physical state and energy efficiency of the streetlight system as well as maintaining or increasing the quality of the service. The municipality was interested in conducting this project with EPC and an open public tender was published for ESCOs to submit their offers. This led to the final selection of the most profitable solution for the municipality and its citizens.

It was decided to include the energy management, the payment of the energy supply, the preventive maintenance and the full guarantee on the infrastructure in the EPC contract.



The municipality now benefits from a significant reduction of the overall costs of their public lighting system due to this more efficient system and the lower maintenance costs.

Facts

- **Population:** 856 inhabitants
- **Type of streets:** 80 % residential and 20 % roads
- **ESCO:** Rios Renovables
- **Electricity cost savings:** 41,535 €/year
- **Reduction electricity consumption:** 249,950 kWh/year
- **CO₂ reduction:** 75 tons/year
- **Investment costs:**
 - 170,000 € (total investment)
- **Subsidies:** 0 €
- **EPC contract duration:** 14 years

Further information:

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Streetlight data of the project	Before renovation	After renovation
Total installed electric capacity	87 kW	29 kW
Total number of lamps	450	440
Number of lighting points (luminaires)	450	440
Annual electricity consumption	343,850 kWh	94,750 kWh
Annual electricity costs	27,900 Euro	6,615 Euro
Annual maintenance costs	7,500 Euro	3,500 Euro

Results

The municipality wished to renovate the overall street lighting system in order to start getting benefits before the end of 2015. The municipality considered it crucial to contract an experienced ESCO with many references in streetlight energy efficiency and renewable energy projects. One of the benefits gained by the municipality by using the EPC model was the reduction in the timetable for the overall installation of the new system. The entire project has benefitted from the close cooperation between the ESCO and the municipality. The municipality is satisfied with the implementation and project outcome as well as the lighting quality.

Support by the facilitation service

The facilitation service supported the municipality and ESCO in several steps of the project: providing advice and information on the project's feasibility and the quality of streetlight technologies. It offered feedback on technical and financing issues and on the development of the EPC contract. The quality of the streetlights, providing the citizens with an improved street lighting service and reducing costs for the municipality in the coming years were defined as key aspects of the project.



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