

Valencian Community, ES – Improvement of energy performance in traffic lights

Time period: 2008-2011

Application: Energy Efficiency

Theme of collaboration: Implementing joint Financial Mechanisms

Topic: Joint Procurement Process

Description

The "Improvement of energy performance in traffic lights" project aims to help all the municipalities of the Valencian community with replacing their traffic light incandescent bulbs with more energy-efficient LEDs (light-emitting diode). The Valencian Energy Agency (AVEN) was in charge of implementing these actions, with the participation of the municipalities and of electrical installation companies. This initiative used a multi-level governance approach with the national, regional and local levels being involved.

The project started with an open call where municipalities could apply and express their needs. Once the needs of all the municipalities were known, a public call for tender was published in order to select a company able to supply all the LEDs. In the end, the Valencian Energy Agency contributed to the cost of the LEDs, after checking that the installations were effectively carried out. The cost of the installation of the LEDs was covered by the municipalities.

Context / Background

The "Improvement of Energy performance in traffic lights" project (Programa de Mejora Energética de los Semáforos de la Comunitat Valenciana) is one of the several actions of the "Energy Efficiency and Savings Plan" of the Valencian Community which aims at reducing the primary energy consumption of the region. It is part of the collaboration agreement signed by the regional authority with the "Instituto para la Diversificación y Ahorro de la Energía" (IDEA), the Spanish national energy agency.

Budget range

< € 100,000
€ 100,000 – € 1,000,000
€ 1,000,000 – € 10,000,000
€ 10,000,000 – € 100,000,000
> € 100,000,000
N/A

Key results

20,000 traffic light incandescent bulbs have been replaced by more energy-efficient LEDs, in the Valencia Community.



Traffic light with new casing and LEDs



Partners involved - Governance

- Instituto para la Diversificación y Ahorro de la Energía (IDEA)
- Valencian Community
- Valencian Energy Agency (AVEN) (now called Valencian Institute for Company Competitiveness – IVACE Energía)
- 99 municipalities

The Valencian Energy Agency led the implementation of all the actions, with the participation of the municipalities and companies of the electrical installation sector.

Financing & costs

The total cost of the initiative is € 1,197,000 including the cost of the material (LEDs). The installation was carried out by the beneficiaries, mainly the municipal councils.

The project was co-funded by IDEA (national level) and AVEN (regional level). It was very well received by the municipalities that benefited from this action.

Results achieved

More than 20,000 traffic light incandescent bulbs have been replaced by more energy efficient LEDs (light-emitting diodes).

In 3 years, this action generated about 4,500,000 kWh of energy savings and about 1,174 tons of avoided CO2 emissions.

Lessons learned & Success factors

The key success factor of the initiative was the **political will** of IDEA (national level) and AVEN (regional level) to increase the funding dedicated to this type of action. When such a **strong commitment of regional and national authorities** is in place, it is easier for local municipalities to adhere to similar initiatives and reach significant targets. A multi-level governance model works properly when an **adequate budget is allocated**.

Similar Initiatives – Transferability

You can learn about improving the energy efficiency and reducing the budget for street lighting, in particular through the innovative financing mechanism of Energy Performance Contracting, through the European project: “Streetlight-EPC” (launched May 2014): www.streetlight-epc.eu



Traffic lights with LED lamps at a pedestrian crossing



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