

Una manera de hacer Europa



BUENAS PRÁCTICAS

Actuaciones Cofinanciadas

Replacement of luminaires with LED lighting in the town's outlying districts and industrial estates. EDUSI "Valdepeñas ON"

Valdepeñas City Council

**Programa Operativo
Plurirregional de España**

Año 2022

Fondo Europeo de Desarrollo Regional

GOOD PRACTICE: REPLACEMENT OF LUMINAIRES WITH LED LIGHTING IN THE TOWN'S OUTLYING DISTRICTS AND INDUSTRIAL ESTATES.

80% CO-FINANCED BY THE EUROPEAN UNION THROUGH THE EUROPEAN REGIONAL DEVELOPMENT FUND (ERDF), IN THE FRAMEWORK OF THE MULTIREGIONAL OPERATIONAL PROGRAMME FOR SPAIN 2014-2020.

INTRODUCTION

The purpose of this document is to identify and characterise a “Good Practice” in terms of communication related to operations financed by the European Union supported by the “Valdepeñas On” Strategy for Integrated Sustainable Urban Development (ISUD).

The communication is made in relation to the commitment made by the Town Council of Valdepeñas, as a “Light Intermediate Body” [*Organismo Intermedio Ligero*] in the “Urban Axis” of the Multiregional Operational Programme for Spain 2014-2020 (POPE), to inform the Managing Authority of an action or experience which, because of its content, innovative nature or possible extension to other organisations or Town Councils managing Integrated Sustainable Urban Development (ISUD) Strategies, might constitute “Good Practices”.

The action forms part of the operation called the Municipal Public Lighting Improvement Plan, as part of the Line of Action 4, with the total amount for the operation being €400,000. The support provided by the ERDF is €320,000, which is 80% of the total.

The operation has had an impact in the Valdepeñas scope of action, and more specifically in the following different areas of action:

Avenida de los Estudiantes, Avenida Primero de Julio, Calle Alameda, Calle Bocoy, Calle Bolivia, Calle Ecuador, Calle General Margallo, Calle La Bota, Calle Paraguay, Calle Pellejo, Calle República Dominicana, Calle Seis de Junio, Calle Tonel, Calle Torrecilla, Calle Uruguay, Calle Venezuela, Carretera del cementerio, Zona Defesa, Paseo de la estación, roundabout at the junction of C/Torrecillas and Ctra. Ciudad Real, roundabout at the Salida Santa Cruz, Salida El Peral, Travesía Bolivia, Travesía Ecuador, the Sagrario Torres and Entrecaminos business park roundabout: access roundabout, Avenida de Francia, roundabout at Avenida de Francia, Avenida de Grecia, Avenida de España, Avenida de Austria, Calle Bélgica, Calle Holanda, Calle Luxemburgo, Calle Irlanda, Avenida de Alemania, Avenida de Suiza.

In this Line of Action 4, 1,125 150W and 250W sodium vapour luminaires have been replaced with LED luminaires. Having carried out a prior study of the public lighting situation in the town, and after subsequent analysis of the results of the study, low-efficiency luminaires were replaced with LED-type luminaires that have a high utilisation factor and low upper hemisphere light flow.

They were replaced with blocks of LEDs that consume less power and offer better performance, while complying with the lighting requirements established by the current legislation. The result has been a significant reduction in electricity use and uniform lighting in the town, with the following results:

- Replacement of 1,125 existing light points, replacing the current high pressure sodium (HPS) luminaires with LED luminaires.
- Current installed power: 285.78 kW
Energy use prior to the operation: 1,228,832.50 kWh
- Installed power after the action: 60.71 kW
Energy use after completion of the operation 195,801.04 kWh



THE CRITERIA FOR THE IDENTIFICATION AND SELECTION OF THE GOOD PRACTICE ARE AS FOLLOWS:

1. THE ACTION WAS APPROPRIATELY DISSEMINATED AMONG THE BENEFICIARIES, POTENTIAL BENEFICIARIES AND THE GENERAL PUBLIC.

The Municipal Public Lighting Improvement Plan operation was widely disseminated, from the planning stage to execution and implementation, especially intended for the people and organisations benefiting from the scope of action.

In terms of **regulatory communication**, the announcement of the invitation to tender and the corresponding terms and conditions, the announcement of the award and the formalisation of the contract were published on the Valdepeñas Town Council website and on the State Contracting Platform on 8/05/2020. It was specified that the contract dossier forms part of the “Valdepeñas ON” ISUD and that it is 80% co-financed by the European Regional Development Fund (ERDF), as part of the Multiregional Operational Programme for Spain (2014-2020). The link is given below

https://contrataciondelestado.es/wps/poc?uri=deeplink%3Adetalle_licitacion&idEvl=xL1ppMCDJLamq21uxhbaVQ%3D%3D

A number of notices concerning the operation were also displayed, explaining the European Union co-financing through the European Regional Development Fund (ERDF) and featuring the slogan “Una manera de hacer Europa” [A way to make Europe] at the junction between Avenida Primero de Julio and calle Norte, on Avenida Estudiantes, in the Entrecaminos industrial estate, in the Valdepeñas Town Hall, and in other locations, to ensure it was seen by all members of the public.



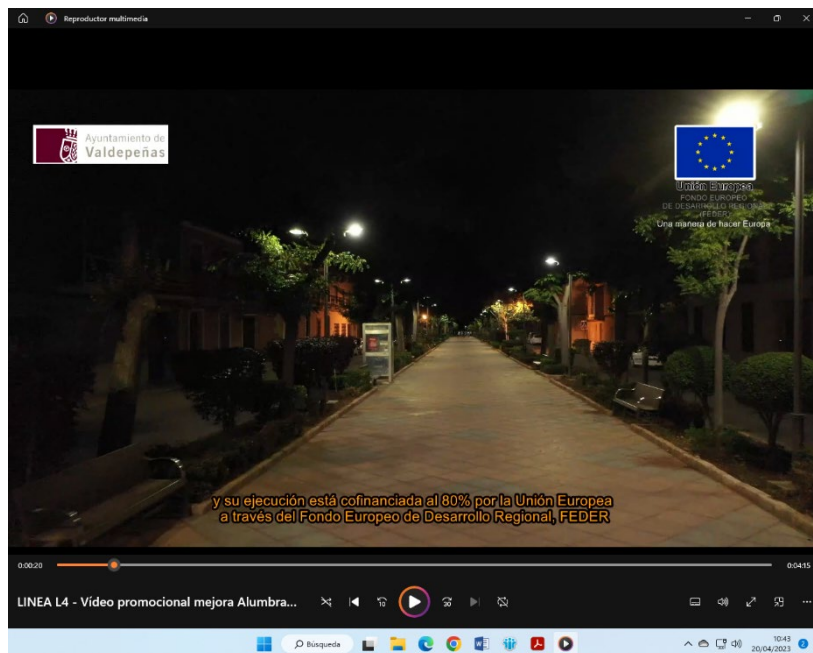
Photo of the displayed notice

The operation was also publicised, obviously, on the website: <http://edusi.valdepenas.es/> and accessed by clicking on “programación” [programmes]/ “objetivo temático 4” [thematic objective 4] and on “comunicación” [communication]/ “línea de actuación 4” [line of action 4].

As regards the **additional communication**:

- A video explaining the operation was made, and viewed on <http://edusi.valdepenas.es/> by clicking on “comunicación/ línea de actuación 4”, in order to provide information on the Municipal Public Lighting Improvement Plan to the public.

[Link to the video](#)





Ayuntamiento de
Valdepeñas
EDUSI VALDEPEÑAS ON



UNIÓN EUROPEA

FONDO EUROPEO DE DESARROLLO REGIONAL (FEDER)
Una manera de hacer Europa

Proyecto para la renovación parcial de la instalación de alumbrado público exterior para la mejora de la eficiencia energética en Valdepeñas (Ciudad Real)

Objetivo Temático 4: Favorecer el paso a una economía baja en carbono en todos los sectores.

Presupuesto de Ejecución	392.000,00 €
Unión Europea 80%	313.600,00 €
Ayto. de Valdepeñas 20%	78.400,00 €

- Advertisements were published in the local and provincial press with details of the different actions undertaken in the operation.



- An advertisement was published in the Castilla-La Mancha regional press in the “La Tribuna” newspaper.



- Adverts were taken out on regional radio in Castilla-La Mancha on well-known radio stations like Onda Cero, Cadena Ser and Dial. The adverts broadcast can be heard at the following link: <http://edusi.valdepenas.es/> in “Communication in Line of action 4”.
[Link to Cadena Ser advert.](#) [Link to Onda Cero advert](#)

2.- THE OPERATION INCORPORATES INNOVATIVE ELEMENTS.

1,125 sodium vapour luminaires with a power of 150W and 250W were replaced with LED luminaires, blocks of LEDs with lower power and better performance that meet the lighting requirements set out in the current legislation. The result has been a significant reduction in electricity consumption and uniformity in the town's lighting.



3.- THE RESULTS OBTAINED MEET THE OBJECTIVES SET.

The results obtained are as follows:

- Replacement of 1,125 existing light points, replacing the current HPS luminaires with LED luminaires.
- Previous installed power: 285.78 kW
Consumption prior to the operation: 1,228,832.50 kWh
- Installed power after the action: 60.71 kW
Consumption after completion of the operation 195,801.04 kWh

Reduction in consumption (MWh):

$$1,228.83 - 195.80 = \mathbf{1,033.03}$$

Energy saving = **84.07%**

GREENHOUSE GASES:

Consumption prior to the operation: 1,228,832.50 kWh

Consumption after completion of the operation 195,801.04 kWh

Reduction in consumption (kWh): 1,033,031.46

Reduction in consumption (MWh): 1,033.03

Reduction in equivalent T of CO₂/year: 1,033.03*0.521 = 538.21

4.- CONTRIBUTION TO SOLVING A REGIONAL PROBLEM OR WEAKNESS.

The actions carried out have reduced excessive energy use in public lighting, allowing an energy saving of up to 84%, with a consequent reduction in greenhouse gas emissions.

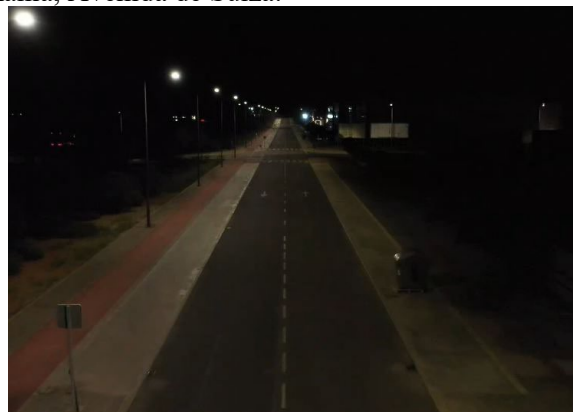
Furthermore, this action has also improved the quality of lighting in the urban environment, with a change from yellow lighting with a low colour rendering (index) to neutral lighting with a high colour rendering index. The result is improved visual comfort and a reduction in light pollution towards the upper hemisphere.



5.- HIGH DEGREE OF COVERAGE OF THE POPULATION FOR WHOM IT IS INTENDED.

The operation has had an impact throughout the town of Valdepeñas, given that actions were carried out in many areas, which are the following:

Avenida de los Estudiantes, Avenida Primero de Julio, Calle Alameda, Calle Bocoy, Calle Bolivia, Calle Ecuador, Calle General Margallo, Calle La Bota, Calle Paraguay, Calle Pellejo, Calle República Dominicana, Calle Seis de Junio, Calle Tonel, Calle Torrecilla, Calle Uruguay, Calle Venezuela, Carretera del cementerio, Zona Defesa, Paseo de la estación, roundabout at the junction of C/Torrecillas and Ctra. Ciudad Real, roundabout at the Salida Santa Cruz, Salida El Peral, Travesía Bolivia, Travesía Ecuador, at the Sagrario Torres and Entrecaminos business park roundabout: access roundabout, Avenida de Francia, roundabout at Avenida de Francia, Avenida de Grecia, Avenida de España, Avenida de Austria, Calle Bélgica, Calle Holanda, Calle Luxemburgo, Calle Irlanda, Avenida de Alemania, Avenida de Suiza.





6.- HORIZONTAL CRITERIA OF EQUAL OPPORTUNITIES, NON-DISCRIMINATION AND ENVIRONMENTAL SUSTAINABILITY HAVE BEEN TAKEN INTO ACCOUNT.

The action carried out guarantees equal treatment and opportunities for all persons, irrespective of their nationality, sex, race or ethnic origin, religious beliefs or convictions, age, sexual orientation and, in particular, for persons with visual problems. This action guarantees equality and non-discrimination in movement, creating walking itineraries that are both pleasant and visually safe for all persons.

As regards environmental sustainability, the action has been carried out in accordance with the principle of sustainable development and to promote the objective of preserving, protecting and improving the quality of the environment. The actions carried out have promoted reduced energy consumption and a reduction in light pollution of the upper hemisphere, decreasing atmospheric environmental pollution and improving quality of life for the public in general.

The incorporation of high energy-efficient lighting has reduced emissions of contaminants, thereby reducing the production of greenhouse gases.

7.- SYNERGIES WITH OTHER POLICIES OR PUBLIC POLICY INSTRUMENTS.

The “Public Lighting Improvement Plan” action, forming part of the Energy Efficiency Plan, developed with the action plans to reduce consumption in the different actions carried out by the Town Council, is designed to reduce consumption and improve the energy efficiency of each of the installations that depend on this town council.

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