



Una manera de Racer Europa



Change of old luminaires for LED lights in Viella Av. EDUSI "The center of Asturias"

City Council of Siero, Asturias

Programa Operativo Plurirregional de España

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Fondo Europeo de Desarrollo Regional

Best Practice 5: CHANGE OF OLD LUMINAIRES FOR LED LIGHTS IN VIELLA AVENUE. EDUSI "The center of Asturias". City Council of Siero, Asturias

INTRODUCTION:

Lugones has experienced a strong population growth in recent years as a consequence of its proximity to Oviedo. However, this growth has been done in a disorderly manner along two roads that cross the municipality: Avenida de Gijón and Avenida de Viella.

The consequence of this situation is that Lugones lacks an urban center around which to organize its economic, social and territorial/environmental development, while at the same time fostering a sense of identity for the citizens of Lugones, which is currently lacking.

In this sense, the City Council of Siero proposed in the scope of the EDUSI an integrated redevelopment operation of Avenida de Viella to improve accessibility and the urban environment and an operation to improve the energy efficiency of public lighting to reduce energy consumption and GHG emissions in Avenida de Viella.

The objective of the action was to transform Avenida de Viella in an integrated manner, through urban planning that promotes the social, economic and environmental development of the urban center of Lugones as a diverse, livable and attractive space, as well as to achieve greater energy efficiency.

In Avda. de Viella, there were several different models of luminaires installed and with various types of placement (ornamental poles, concrete poles of the energy distribution company, galvanized steel and even on facades), with subway installations and also sections of overhead wiring. There was therefore a disparity of lighting characteristics linked to the variety of models, road sections and installation heights of the luminaires due to the different periods in which they were placed and different municipal or urban planning actions, so they did not offer the uniformity and characteristics required by the Regulation on Energy Efficiency in Outdoor Lighting Installations and its ITC's (R.D. 1890/2008). In addition, they were made up of High Pressure Sodium Vapor lamps V.S.A.P. so that the consumption in the normal operating regime was very high, increasing during the ignition (start-ups).

For this reason, within the framework of the urban development project, it was necessary to replace all the existing equipment, since in addition to interfering with the proposed road design, it is necessary to replace the current lighting to adapt it to the new requirements and spaces. The replacement allows to act with energy efficiency criteria by opting for LED solutions.

The old electrical power distribution installation, in overhead installation on facades and with concrete poles, also interfered at many points with the layout of lanes, roadways and sidewalks planned in the urbanization project, so when it was affected, it was decided to replace it with a subway installation, piping the existing lines and wiring

under the new green or paved areas in order to help eliminate the architectural barriers that it generated, gaining continuity in the sidewalk.

For this purpose, all the existing luminaires, supports and wiring were removed and 61 new light points were installed on ornamental poles for the functional lighting of the public streets (roadways, bicycle lanes and sidewalks), as well as 20 light points for reinforcement of lighting at crosswalks, all of them with LED technology, which significantly reduce energy consumption and therefore CO2 emissions into the atmosphere.

This has entailed the execution of new channeling and wiring, the construction of manholes and foundations of new supports, as well as the supply and installation of the luminaires and supports indicated. Specifically, the planned action required the removal of 43 existing points, as well as the supply and installation of 61 new light points consisting of 70 w LED technology luminaires and a 9 meter high painted galvanized steel pole, as well as the supply and installation of another 20 luminaires, also LED, of 20 w with their corresponding 5 meter high steel pole in a notably different color temperature to highlight the location of the crosswalks.

To complete the installation, it was necessary to build approximately 1,430 meters of conduit consisting of two pipes and around 410 meters of four-pipe conduit, with their corresponding manholes and subsequent supply and grounding wiring for the lighting points.

For the removal of the current overhead power distribution network that affects the design of the street layout, it was necessary to install approximately 890 meters of buried conduits consisting of four or two pipes and the corresponding manholes.

The amount of the contract award (with taxes) linked to the integral action of redevelopment of Avenida de Viella amounted to 2,052,775.89 being the part corresponding to the new luminaires THREE HUNDRED SEVENTY THREE THOUSAND, ONE HUNDRED SEVENTY EIGHT EUROS, THIRTY CENTS (373,178.3 \in), of which 80% (298,542.64 \in) is co-financed by the European Union. This action is linked to the operation to improve the energy efficiency of public lighting to reduce energy consumption and GHG emissions in Avenida de Viella.

1. THE ROLE OF THE ERDF IN THE ACTION HAS BEEN ADEQUATELY DISSEMINATED TO POTENTIAL BENEFICIARIES AND THE GENERAL PUBLIC.

The role of the ERDF in the action has been disseminated with the following communication actions:

The following advertisement was inserted in local and regional press:





Local newspaper El Tapín, 3/21/2023



Newspaper El Comercio 23/3/2023





Regional newspaper La Nueva España, Regional newspaper La Nueva España, 03/20/2023 03/25/2023

A campaign of one radio spot on NATIONAL radio (ONDA CERO) on March 23, 2023 and a campaign of 20 radio spots of 20" on regional radio (COPE Regional) from March 27 to 31, 2023:

https://ayto-siero.es/recursos/doc/Feder-Dusi/260_2542542023111549.wav

With regard to the Regulatory Communication, an informative sign was placed during the execution of the works, as the work was being carried out. In addition, after the completion of the work, a definitive plaque was made.





Fondo Europeo de Desarrollo Regional Una manera de hacer Europa



Cambio de antiguas luminarias por luces led en la avenida de Viella

Operación: Mejora de la eficiencia energética del alumbrado público para la reducción del consumo energético y emisiones GEI en avenida de Viella

Objetivo temático: 074. Conseguir una economía más timpia y sostenible

ESTRATEGIA DUSI_SIERO
Programa Operativo Plurirregional de España 2014-2020



And in the administrative documentation, the EU and FEDER logos were used.



2. THE PERFORMANCE INCORPORATES INNOVATIVE ELEMENTS

From a methodological point of view, this operation is an innovation with respect to previous actions of the City Council of Siero since a joint action is carried out from an integrated perspective on Avenida de Viella from two different expressions of interest. The aim is to make a comprehensive intervention improving spaces for pedestrians, promoting sustainable non-motorized mobility (pedestrian and cyclist) and creating an attractive and safe street for citizens and with adequate accessibility. To this end, the correct lighting of spaces is a fundamental element for improving the quality of life of citizens.

From a technological perspective, the incorporation of LED lighting and the improvement of the lighting infrastructure will make it possible to modulate the intensity of the lighting itself, adjusting it to the visibility needs of each moment, especially at crosswalks, detecting pedestrian movement.

3. ADEQUACY OF THE RESULTS OBTAINED TO THE ESTABLISHED OBJECTIVES

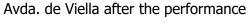
Within the 4 main results expected by the DUSI, the operation effectively contributes to the fulfillment of:

R2: A municipality that reduces its carbon footprint through the use of sustainable mobility and energy.- The physical regeneration of the avenue includes elements that encourage the use of sustainable, pedestrian and non-motorized mobility.

4. CONTRIBUTION TO THE RESOLUTION OF A PROBLEM OR WEAKNESS DETECTED IN THE TERRITORIAL AREA OF EXECUTION

According to the energy audit of the municipal public lighting of Siero, the replacement of the current high pressure sodium vapor luminaires with LED technology would mean a reduction of the current energy consumption.

At present, the lighting system in Lugones is not very efficient and not powerful enough, creating unsafe spaces, especially for women. Therefore, an efficient lighting in the urban core of Lugones will increase the savings of the municipality of Siero and will generate a social benefit generating more visible and safer urban spaces taking into account the gender perspective. In addition, a well-lit surface favors walking and cycling in the hours with less light.







DEGREE OF COVERAGE OF THE TARGET POPULATION

The direct beneficiaries of this operation will be in the first place the residents of Lugones (13,213 inhabitants) as it is the parish of the municipality with the largest number of inhabitants and it is within the area of action of the DUSI Siero Strategy "The center of Asturias".

There will also be other indirect beneficiaries such as the non-resident population of Lugones that visit the parish for different reasons (work, studies, leisure and culture, commercial, etc.).

6. CONSIDERATION OF THE HORIZONTAL CRITERIA OF EQUAL OPPORTUNITIES AND NON-DISCRIMINATION, AS WELL AS SOCIAL RESPONSIBILITY AND ENVIRONMENTAL SUSTAINABILITY.

The operation takes into account the horizontal principles of equal opportunities between men and women, non-discrimination, as well as those of social responsibility and accessibility. Improved lighting in public spaces will contribute to safer public spaces for women and children, and will improve accessibility for the elderly. The improvement of the urban environment contributes to the process of fixation and attraction of young population that favors the process of rejuvenation of the population pyramid. On the other hand, the reduction of energy consumption is a fundamental tool in the fight against climate change and sustainable development.

SYNERGIES WITH OTHER POLICIES OR INTERVENTION INSTRUMENTS.

This action is aligned with the actions foreseen in the Energy Audit of the Public Lighting Installations of the municipality of Siero elaborated in 2018.





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