

SECRETARÍA DE ESTADO DE PRESUPUESTOS Y GASTOS DIRECCIÓN GENERAL DE FONDOS EUROPEOS

MINISTERIO DE HACIENDA



BUENAS PRÁCTICAS

Actuaciones Cofinanciadas



Una manera de lacer Europa

IMPROVEMENT OF THE ENERGY EFFICIENCY OF STREET LIGHTING IN IGAREDA AND DR. ARINES AND IN THE NEIHGBOUHOODS PICO LATORRE AND LA PESA (MUNICIPALITY OF CABEZÓN DE LA SAL) Department of Public Works and Housing

Programa Operativo de Cantabria

Año 2019

Fondo Europeo de Desarrollo Regional

IMPROVEMENT OF THE ENERGY EFFICIENCY OF STREET LIGHTING IN IGAREDA AND DR. ARINES AND IN THE NEIHGBOUHOODS PICO LATORRE AND LA PESA (MUNICIPALITY OF CABEZÓN DE LA SAL)

Among the projects promoted by the regional government for the implementation and development of systems for the reduction of energy consumption in buildings and municipal property and street lighting, a course of action has been taken in the streets Igareda and Doctor Arines, and in the districts Pico Latorre and the Pesa of Cabezón de la Sal, with a population of around 8.349 (according to data of 2018).

The Department of Public Works and Housing decided to invest in the head of Cabezón de la Sal, in order to replace the street lighting in those areas by LED luminaires, because of the low levels of lighting with which they counted, since the luminaires were mainly classic lamps with low light output and light output and a high consumption of electric energy. With the development of the action, these areas are provided



with a luminous level, which is appropriate to the significant social and commercial activity in which they are carried out.

The solution adopted consisted of replacing 100 luminaires with other Led technology. In the streets Igareda and Doctor Arines, 21 road luminaires and in the Casa de la Torre were replaced in this way is way. In addition, 18 optical equipment, lamps and equipment of the existing lanterns were changed in the Town Hall square, School workshop, and the Health Centre, and suitable power LED modules were installed. The remainder was located in the districts of El Pico de La Torre and La Pesa.

The total cost of the operation was EUR 40,133, with an eligible cost of EUR 38,842 and ERDF support of EUR 19,421.



In terms of impact, the operation has resulted in saving 79.778 Mwh/year, leading to an annual reduction of 41.564 tons of greenhouse gasses (CO₂) and an annual reduction in primary energy consumption of 6.861 tons of oil equivalent.

This is why it can be highlighted as good practice, according to the following criteria:

The action has been properly publicised among the beneficiaries, potential beneficiaries and the public.

Information and communication have been major elements in the development and implementation of this project, ensuring publicity and transparency of the intervention and increasing public awareness of the added value of Community co-financing through a wide range of tools and actions.

Communication activities, which have enabled the objectives set for the European ERDF to achieve the objectives set for this purpose, have been the following:

Site *posters*:



Advertising on the managing body's website and linking it through the Single WEB:



Publicity on the Government of Cantabria website:



Reference in **internal documentation** (official gazettes, memories, drawings, etc.) of the cofinancing received through incorporation of the logo or reference to the Fund, aid intensity and slogan.



Memory of the energy efficiency improvement project

Economic memory of the project



20 second video highlighting video LED street lamps Cabezón de la Sal 4



The action incorporates innovative elements.

The action is innovative in itself, given that LEDs constitute an advanced and new technology being light efficiency their most important characteristic. In this way, lighting devices based on this technology promote energy saving and efficiency.

LED light sources, luminaires and lighting controls have been combined to provide an integrated solution to improve the urban environment, reduce electricity bill and reduce CO₂ emissions into the atmosphere.

The luminaires have a device, which regulates, controls and measures the working time for switching on and off the lights in winter and in summer, and they have a system of protection



against any very high voltage increases, with the aim of avoiding damage to the equipment or possible interruptions of the service.

The results obtained with it are in line with the objectives set.

The key result of this action is the reduction of electricity consumption, in line with the proposed objectives to improve energy efficiency and the reduction of CO $_2$ emissions in buildings and infrastructure and public services, helping to achieve the objectives set by the European Union, i.e. the reduction of greenhouse gas emissions by 20 %, the increase of the contribution from renewable energy by 20 % and the improvement of energy efficiency by 20 %.



Exploiting the digital potential of LED lighting technology also allows public administrations not only to save energy and maintenance costs, but to achieve the objective of creating a lively and vibrant urban environment.

It contributes to the resolution of a regional problem or weakness.

Street lighting now plays an important role, not only for the development of the economic activity of the municipality, but as a decisive element for well-being and safety. This service represented 60 % of the total energy expenditure in the Cabezón de la Sal municipality.

The explanation of such high local consumption should in general be found in the type of lighting design and the age of many installations, leading to an inefficient use of light energy produced by lighting elements and systems and often-high levels of light contamination.

The intervention also covered a gap, since some of the areas on which it had worked had no lighting, thus creating greater security for the population of this municipality.

It should be borne in mind that Cantabria is the second most heavily dependent Autonomous Community in Spain. This is why there is a particular focus on action to carry out energy saving and efficiency measures and to promote high levels of self-sufficiency at consumer points, with the aim of promoting the transition to a low-carbon economy in all sectors, also taking them into account as key factors for the development of the region.

It has a high degree of coverage on the target population

The coverage of the population reaches all the citizenship of Cabezón de la Sal, which benefits from the aesthetical and light improvement of the streets.

Specifically, it serves residents and passers-by in the streets of Igareda, Doctor Arines and those of Pico Latorre and La Pesa, in addition to those passing through the outskirts of the Health Centre, the Town Hall and the School Workshop.

It will also have a direct impact on the reduction of CO_2 emissions to the atmosphere, improving the environment, thereby benefiting the entire region from the effects of the operation.



The horizontal criteria of equal opportunities and environmental sustainability have been taken into account.

The commitment of this project to the principle <u>of equal opportunities between men and women</u> <u>and non-discrimination</u> is evident from the design.

The conditions in the public procurement procedures already indicate the need for the winning company not to have not committed any infringements of discrimination on grounds of sex or

have failed to fulfil their obligations under the law in this area. There is an express declaration by the undertaking to which the contract was awarded that they comply with the principles of equality and non-discrimination.

The improvement and renewal of street lighting complies with the provisions set out in the existing legislation on <u>universal accessibility</u> by designing an urban environment that drives life by facilitating



access to all services and locations in conditions of comfort, security and autonomy.

From the perspective of the <u>principle of sustainable development</u>, the solutions chosen to implement the co-financed action include different and innovative technologies in the field of outdoor lighting, such as LEDs, which offer citizens welfare, safety, reduction of light pollution and environmental sustainability, by significantly reducing CO₂ emissions to the atmosphere (a single LED bulb avoids emission to the atmosphere of 10 kg of CO₂ per year).

Synergies with other public intervention policies or instruments.

Actions for the modernization of street lighting and energy efficiency in municipal installations, through the implementation of corrective measures to replace obsolete technologies, contribute to the sustainable development of the region and are in line with the principles and criteria set out by the European Union and those set out in the 2011-2020 National Renewable Energy Action Plan, the 2011-2020 Renewable Energy Plan or the Energy Savings and Efficiency Action Plan 2011-2020.

They also contribute to the promotion of research and innovation, as the pursuit of innovative solutions for the increasing energy demand, the need to reduce environmental impacts and the rational use of energy, pose challenges that boost the development of technology-based companies and the R & D & I activities in the business sector.

Similarly, the action developed is in line with the final objectives of the actions on sustainable mobility, Sustainable Mobility Plan 2014-2020 in the Region, including the reduction of CO2 emissions into the atmosphere. The use of clean technologies and sustainable mobility has positive effects on both the well-being of people and the economy, including the creation of new jobs in the industrial and service sectors.



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