

*Una manera de hacer Europa*



# BUENAS PRÁCTICAS

## Actuaciones Cofinanciadas

Replacement of existing luminaires with led technology in parks and roads in the neighbourhoods of the northern area of Almería. EDUSI "Bajo Andarax". Almería County Council

**Programa Operativo  
Plurirregional de España**

Año 2022

**Fondo Europeo de Desarrollo Regional**

# GOOD PRACTICE EDUSI "BAJO ANDARAX". ALMERIA COUNTY COUNCIL

## ACTION: REPLACEMENT OF EXISTING LUMINAIRES WITH LED TECHNOLOGY IN PARKS AND ROADS IN THE NEIGHBOURHOODS OF THE NORTHERN AREA OF ALMERIA.

This good practice consists of the replacement of existing luminaires with LED technology in parks and roads in the neighbourhoods of the northern area of Almeria.

Thanks to this good practice, the existing gas discharge luminaires have been replaced with new LED technology luminaires and optical blocks, which has meant the intervention in a total of 23 public lighting control centres and a total of 534 light points, all thanks to the aid from the European Regional Development Fund.

The operation in which the action is framed has an eligible cost of 200,000.00 €, being co-financed by the ERDF at 80%, which implies a contribution by the Light Intermediate Body of 20% of the total, amounting to 40,000.00 €. It is estimated that the action will have a direct impact on 34,989 people. For its part, the expenditure allocated to communication actions in relation to this good practice amounts to €9,400.00.

### 1. THE FEDER'S ROLE IN THE ACTION HAS BEEN ADEQUATELY PUBLICISED AMONG BENEFICIARIES, POTENTIAL BENEFICIARIES AND THE GENERAL PUBLIC

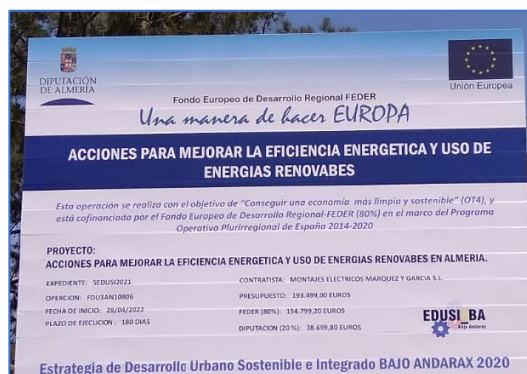
The role of the ERDF in the good practice has been disseminated in an appropriate way among the potential beneficiaries of the action, taking into account at all times the recommendations issued by the Directorate General of Community Funds, as well as the different regulatory provisions in this respect.

The communication carried out in the framework of this action has been carried out through the following elements:

#### - Plaque:



#### - Poster:



#### - Announcements in provincial press:



**- Provincial radio posts:**

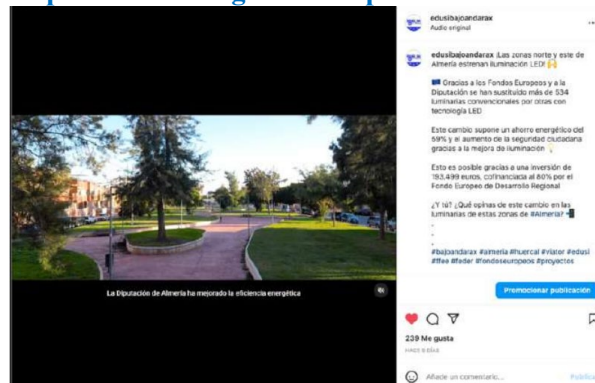
[https://www.youtube.com/watch?v=ofsmND\\_uD\\_4](https://www.youtube.com/watch?v=ofsmND_uD_4)

<https://www.youtube.com/watch?v=hpQvBcJBWXA>

**- Purchase of spaces in Social Networks:**



<https://www.instagram.com/p/CnzGLaFL7BH/>



<https://bit.ly/3xttgVS>

**- Videos subtitled in English:**

<https://www.youtube.com/watch?v=4fBzTunqODE&t=3s>

**- Brochures:**



**2. THE ACTION INCORPORATES INNOVATIVE ELEMENTS**

The innovative nature of the project lies in the use of LED technology luminaires and optical blocks, which will allow for greater energy, lighting and aesthetic efficiency in outdoor lighting installations.

In this way, the current luminaires, which are less energy efficient and do not comply with the REEIAE in terms of FHS, will be replaced with new ones where the average efficiency per luminaire is higher and in which an increase in performance of more than 70% is achieved compared to those previously installed.

Another of the novelties that will be introduced in the management of public lighting thanks to this good practice is that it will be possible to reduce consumption at each point of light to lower levels of illuminance thanks to the fact that the luminaires used will be adapted to the lighting requirements of the moment, maintaining the best uniformity and guaranteeing optimum lighting conditions. This has been achieved through the installation of a scalable flux reduction system so that the drivers will be pre-programmed for steps (70-50%) allowing these levels to be modified if necessary.

### **3. ADEQUACY OF THE RESULTS OBTAINED TO THE ESTABLISHED OBJECTIVES**

The main objective of this action is to achieve greater energy, lighting and aesthetic efficiency in the outdoor lighting installations, reducing consumption at each light point to lower levels of illuminance, but maintaining the quality of the lighting.

This main objective has been exceeded by far, as the replacement of 534 light points has allowed the reduction of electricity consumption by 59.01% and has enabled an A energy rating to be achieved.

Similarly, the reduction in electricity consumption and the adaptation of the luminaires to current requirements have made it possible to meet the other complementary objectives set out in the operation, including the reduction of energy costs and the reduction of the cost of public lighting, which means a reduction in CO2 emissions and the mitigation of climate change.

In addition, all of this means an improvement in air quality and public health, since the installation of LED technology luminaires eliminates the glare of traditional luminaires, which drastically reduces glare and visual fatigue and helps to reduce symptoms associated with headaches and migraines.

In short, the replacement of existing luminaires with LED technology in parks and roads in the neighbourhoods of the northern area of Almeria contributes directly to the objectives and results expected in the Specific Objective (hereinafter SO) in which the operation of which it forms part is framed (SO 4.5.3, Improvement of energy efficiency and increase of renewable energies in urban areas), since it comprehensively improves the efficiency of public lighting in the intervention area and contributes to the use of environmentally friendly technologies and energies.

### **4. CONTRIBUTION TO THE RESOLUTION OF A PROBLEM OR WEAKNESS DETECTED IN THE TERRITORIAL SCOPE OF EXECUTION**

According to the diagnosis carried out in the elaboration of the DUSI Strategy "Bajo Andarax", as well as the justification of Action Line 3 included in its Implementation Plan, one of the main problems faced by some of the neighbourhoods of Almeria, including the Northern Zone, is the excessive public energy expenditure and the high price of electricity. This last problem was also considered as one of the main concerns expressed by citizens in the citizen participation processes carried out for the development of the DUSI Strategy.

Thus, the replacement of the existing gas discharge luminaires with new LED technology luminaires and optical blocks in 23 public lighting control centres and 534 points of light has provided a comprehensive response to the problem of excessive public energy expenditure, as it has led to a 59.01% reduction in electricity consumption, with the consequent economic savings that this entails.

Furthermore, this action has been carried out in strict compliance with the quality criteria defined by the International Commission on Illumination (C.I.E.), so that special importance has been given to achieving an optimum level of illumination and uniformity, as well as limiting the degree of glare, so that even though energy and economic consumption has been reduced, not only has the quality of the lighting system not been lost, but it has actually increased.

Finally, it should be noted that public lighting has a positive impact on promoting road safety and increasing public safety in public spaces such as the parks and roads where this good practice has been implemented. In this way, the action also contributes to respond to other needs identified

throughout the DUSI Strategy "Bajo Andarax", such as the need to promote internal communication between municipalities and external communication with Almeria through safe sustainable mobility infrastructures that reduce dependence on private vehicles or the creation of green spaces for coexistence that favour social exchange between citizens.

## **5. DEGREE OF COVERAGE OF THE TARGET POPULATION**

The action covers all the residents of the neighbourhoods of La Cañada, El Alquián, Los Almendros, Costacabana, San Vicente, Piedras Redondas, Zona del Estadio, Los Molinos and Torre Cárdenas, so that the population benefiting from the action amounts to 34,989 inhabitants, which means a high degree of coverage.

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

The action complies with the selection requirements by contributing in an integrated manner to problem solving, social cohesion and respect for the principles of equality and sustainability.

From the point of view of the consideration of the horizontal criteria of equal opportunities and non-discrimination, it should be highlighted that in all the phases of the implementation of the action (tender, execution, etc.) all the clauses and requirements introduced in the documentation prepared do not affect any type of discrimination, paying special attention to the non-inclusion of terms or conditions that may be discriminatory from the perspective of gender or in relation to people with different abilities. All of this is a way of guaranteeing equal opportunities for all those people or companies that wish to participate in the development of the action and reflects the Diputación's commitment to social responsibility.

Furthermore, as mentioned above, the improvement of public lighting has a positive impact on the promotion of road safety and the increase of public safety, which allows the creation of safe and quality ways of travelling and spaces for coexistence that can be enjoyed by all citizens, regardless of their socio-economic status.

Finally, the principle of environmental sustainability is one of the protagonists of this action, since the installation of LED luminaires and a scalable flux reduction system means the improvement of energy efficiency in urban areas, thus favouring the transition to a low-carbon economy in all sectors.

## **7. SYNERGIES WITH OTHER PUBLIC INTERVENTION POLICIES OR INSTRUMENTS**

The action of "*Replacement of existing luminaires with LED technology in parks and roads in the neighbourhoods of the northern area of Almeria*" is part of one of the operations proposed in the framework of the Strategy for Sustainable and Integrated Urban Development "BAJO ANDARAX", called "*Actions to improve energy efficiency and use of renewable energy*".

For its part, this operation is part of the line of action "*LA3. Actions to improve energy efficiency and the use of renewable energies*", which contributes to the achievement of Thematic Objective (hereinafter TO) 4. In this way, the aforementioned line of action and the operation that is framed within it are directly related to other lines of action that form part of the Implementation Plan of

the DUSI Strategy "Bajo Andarax" and which are also aimed at achieving TO4. This is the case of the line of action "*LA2. Infrastructure and promotion of sustainable mobility in the metropolitan area*". Thus, both this good practice (together with the operation and the line of action in which it is included) and LA2 pursue the transition to a low-carbon economy in all sectors.

Likewise, this action presents important synergies with the DUSI Strategy "Almeria Open City", due to the fact that the improvement of energy efficiency in public lighting in the city of Almeria is also one of the main challenges to be addressed in the city, so that this good practice contributes positively to its achievement.

It should also be noted that, in a complementary manner, the Provincial Council is carrying out numerous actions aimed at improving energy efficiency both in the city of Almeria and in the province as a whole. This is the case of the projects co-financed by the Institute for Energy Diversification and Saving (IDAE), which include improving the energy efficiency of outdoor lighting installations in the municipalities of the Levante and Los Vélez area (1st phase completed) and those now being undertaken in the rest of the province.

Finally, mention should be made of the actions aimed at the energy transition that are being developed within the framework of the DUS 5000 Programme, financed by the Recovery, Transformation and Resilience Plan (PRTR) and charged to the Next GenerationEU Funds.

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