

*Una manera de hacer Europa*



Strategy for the increase of the energy efficiency  
of public lighting in Ceuta  
Autonomous City of Ceuta

**Programa Operativo  
de la Ciudad de Ceuta**

Año 2018

**Fondo Europeo de Desarrollo Regional**



## STRATEGY FOR THE INCREASE OF THE ENERGY EFFICIENCY OF PUBLIC LIGHTING IN CEUTA

### SHORT DESCRIPTION

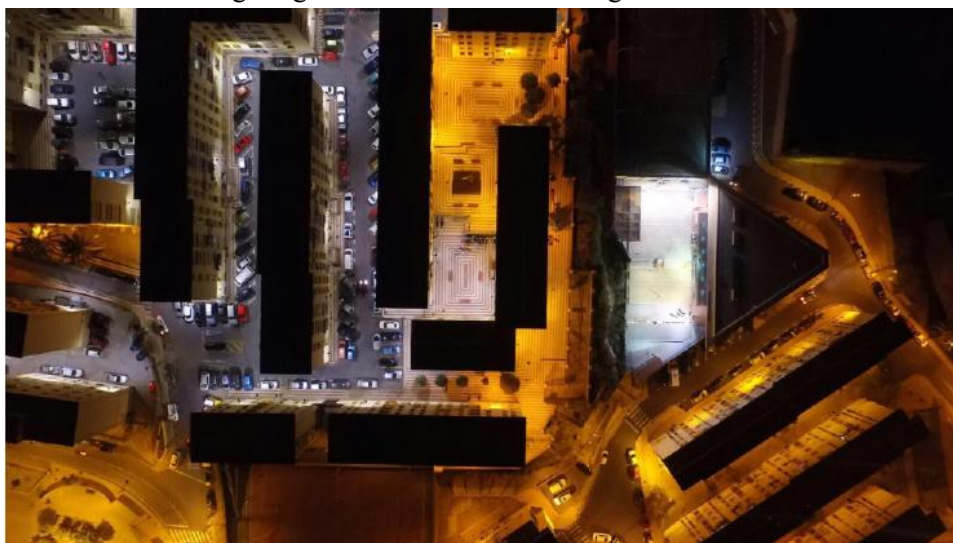
The objective of this strategy is to improve the efficiency and energy saving of the facilities, adapting these to the current regulations, implementing light fixtures, lamps, equipment, regulation and control systems, etc. suitable for reaching the quality criteria of the highest level of efficiency and energy savings.

The main action is the replacement of the current light fixtures with significantly more efficient ones, based on LED technology. This is supplemented with other actions that additionally optimize the performance of the system.

For the planning and implementation of the strategy, the Industry and Energy Service of the Autonomous City of Ceuta defines 12 districts that cover the entire exterior lighting system of Ceuta, with the exception of ornamental lighting and buildings.

The action has a total cost of 4,548,406 euros, of which the ERDF funds 3,765,680 euros. The impact is very beneficial both for the environment and for energy efficiency in the City of Ceuta, as it represents an energy saving of just over 3.5 million KWh, an economic saving of just over half a million euros a year and the reduction of the carbon footprint of 2.5 kg CO<sub>2</sub>eq.

Aerial image of the Barriada Zurrón de Ceuta in which the differences between conventional installed lighting and new installed LED lights can be observed.



**The action has been disseminated among the beneficiaries to great effect so that potential beneficiaries and the public in general** are aware of its importance. In terms of communication, different channels have been used; including printing and digital media, local television and radio stations, social networks, as well as a public presentation of the project.

## Public presentation of the project



## News on a professional communication web portal for efficient lighting

News on a professional communication web portal for efficient lighting

9 March, 2019

EVENTOS AGENDA DIRECTORIO EDITORIAL HUMAN CENTRIC LIGHTING NEGOCIOS MERCADO FORMACIÓN SML MAGAZINE

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Actualidad del Sector

El área de Proyectos, factor clave en la estrategia de desarrollo que LEDVANCE presentará en EPICAM 3 marzo

Un Centro de Innovación de Economía Circular de la mano de las tres universidades públicas de Madrid 2 marzo

"Carandini: 100 años iluminando la vida de las personas", ¿el lema que lo dice todo? 7 marzo

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## News item in El Pueblo de Ceuta



## News item on Ceutaldia

**Ceutaldia**SÁBADO 09 MARZO 2019f t G+ yInicio Al día Ocio Opinión Inmobiliaria

3,7 MILLONES DE INVERSIÓN

### Comienza la renovación de luminarias en la zona centro, que se ejecutará todo el verano

CAD 11 JUNIO 2018 13:55 H.

La Ciudad prevé completar la renovación de las luminarias de todo el centro este verano. Este lunes han comenzado los trabajos en la rotonda de Enrique El Navegante, que se extenderán hasta septiembre hasta el Campus Universitario y la circunvalación del Hacho, San Amaro, Sarchal y Urbanización Monte Hacho.

La actuación abarcará la avenida Otero, Barcelona, Claudio Vázquez, Lisboa, Madrid, España y General Muslera y el cambio también se hará efectivo en la Junta Obras del Puerto, Padre Feijoo, Manzanera, Los Rosales y Juan Carlos I.

El objetivo de esta inversión es "mejorar el rendimiento del alumbrado público y la eficiencia energética mediante la transformación de las instalaciones de alumbrado exterior, fundamentalmente con la renovación de luminarias por otras de tecnología LED y la implantación del sistema de telegestión punto a punto".

Además, con la incorporación de estas lámparas "el nivel de iluminación será superior al actual aunque la potencia sea inferior", con lo que "se evitará contaminación lumínica y se cumplirá con el Reglamento de Eficiencia Energética".

Se trata de un proyecto que "engloba a toda Ceuta" y en el que la Administración autonómica, a través de la sociedad pública Procesa, prevé una inversión de 3,7 millones de euros en el Plan de Eficiencia Energética del Programa Operativo FEDER 2014-2020 y la sustitución de 7.222 lámparas.

Paralelamente, durante la legislatura se contempla la sustitución, con cargo a los fondos propios de la Ciudad, de otras 2.687 luminarias. En total más de 10.400 luminarias, con una inversión total de 4,6 millones y un ahorro en consumo que supera el medio millón de euros al año.

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**NUEVO NISSAN X-TRAIL**

LO MÁS  
+ VISITADO + RECIENTE  
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**La Ciudad dará dos meses a los hosteleros para adaptar sus terrazas a la nueva normativa estética**  
POLÍTICA | 16 DE FEBRERO DE 2019

The action incorporates innovative elements, because the best solution has been sought for the provision of a public service in an efficient way from an economic and environmental point of view. That is to say that the Autonomous City of Ceuta becomes a "Smart Lighting," which means it moves towards intelligent lighting and lighting thinking of people, using new technologies.

### Lighting with LED technology



**The results obtained comply with the established objectives.** With the application of this strategy around 90% of the light fixtures belonging to the public lighting of the Autonomous City will be LEDs, generating significant economic savings. At the same time the environmental sustainability of the installation is maximized, with a significant reduction in the carbon footprint associated with its operation.

The remaining 10% correspond to light fixtures that are presently not adaptable to this type of technology.

Assuming a reduction of the average power of 136 w per light fixture, and taking into account the actions developed by the Autonomous City of Ceuta prior to the approach of this strategy, it is estimated that the consumption reduction totals at around 60%, generating an approximate reduction of CO2 emissions to the atmosphere of 3,568 tons and an economic saving of around € 750,000 per year.

Street lighting in Ceuta



**It contributes to the resolution of a regional problem/weakness.**

With this action, the public lighting system of the Autonomous City of Ceuta, which was in a state of technical, economic and efficiency obsolescence, was renewed. With the project, an efficient and environmentally friendly street lighting is made available to the public.

**It has a high degree of coverage of the population to which it is addressed.** The action is aimed at the entire citizenry of Ceuta, as it is conducting the transformation of public lighting throughout the City. Además, con el efecto que conlleva sobre el medio ambiente, ahorro energético y reducción de la huella de carbono, se mejora la calidad de vida de la ciudadanía por la mejora de la calidad del aire de la Ciudad.



**The horizontal criteria of equal opportunities and environmental sustainability have been taken into account.** Both horizontal criteria have been incorporated into the action.

Regarding equal opportunities, this action is aimed at the whole of the citizenship, indistinctive of sex, race or religion; therefore it is considered an integrated and non-discriminatory project.

With regard to environmental sustainability, the action enables adaptation to the requirements and technical characteristics of the facilities to the recommendations and regulations in force; the rational use of energy is encouraged without prejudice to the safety of the users. The natural conditions of the night hours are maintained as much as possible, to the benefit of ecosystems in general; energy saving being generated, since the unnecessary costs of misused energy are avoided; a greater respect for the environment is clearly noticeable, since CO2 emissions are considerably reduced, which contributes to the general welfare and contributes to the national and European objectives regarding the reduction of greenhouse gases.

Lamppost with LED technology



**With regard to synergies with other policies or instruments of public intervention,** this project integrates different policies such as innovation, energy transition and improving the environment and air quality and more efficient use of energy with the use of European Funds (FEDER) and Funds of the Autonomous City of Ceuta.



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# BUENAS PRÁCTICAS

## Actuaciones Cofinanciadas

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