

*Una manera de hacer Europa*



# BUENAS PRÁCTICAS

## Actuaciones Cofinanciadas

Replacement of windows and windows frames, replacement of old lighting fixtures for LED lights and a new boiler at El Faro School in Mazagón and Zenobia School in Moguer

Moguer City Council

**Programa Operativo  
Plurirregional de España**

Año 2022

**Fondo Europeo de Desarrollo Regional**

## **REPLACEMENT OF WINDOWS AND WINDOW FRAMES, REPLACEMENT OF OLD LIGHTING FIXTURES FOR LED LIGHTS AND INSTALLATION OF A NEW BOILER AT “EL FARO” SCHOOL IN MAZAGÓN AND “ZENOBIA” SCHOOL IN MOGUER**

**This good practice consists of improving energy efficiency in the CEIP El Faro (Mazagón) and Zenobia (Moguer).**

Both buildings date back to the early 1980s and had obsolete and inadequate building envelopes for thermal insulation; in addition, the lighting and air conditioning installations were not energy efficient, all of which resulted in high energy consumption and greenhouse gas emissions in both buildings.

In both schools, the improvement works consisted of replacing the exterior windows with more energy efficient models, as well as the installation of new lighting with LED luminaires; projects that, in the case of El Faro school, have been complemented with the replacement of the electric oil radiators heating with new heating systems using water radiators, which contributes to a significant reduction in energy consumption.

The project involved an investment of 426,784.05 euros, of which 341,427.24 euros were co-financed by the European Union thanks to the European Regional Development Fund.

We present the aspect during the works and after the intervention:

During the works:



After the intervention:



It is considered good practice for the following reasons:

## 1.- THE FEDER'S ROLE HAS BEEN ADEQUATELY DISSEMINATED AMONG THE BENEFICIARIES AND THE GENERAL PUBLIC.

The action has complied with the communication obligations such as: the construction site sign and the permanent plaque, the public sector procurement platform and the single FEDER web portal. (<http://www.aytomoguer.es/es/fondos-FEDER/>).

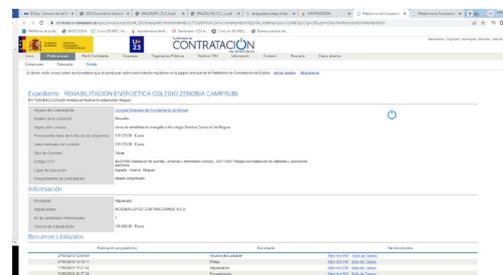
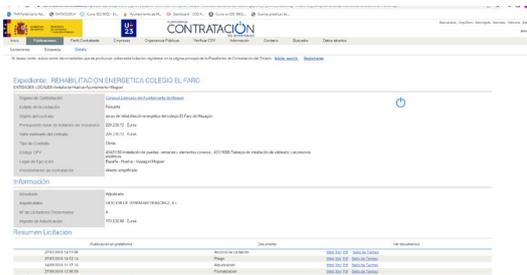
During the execution of the works, informative posters on the works and the FEDER contribution were installed.:



Once the work has been completed, the permanent plaques will be installed:



The bidding procedures were also published on the City Council's own website and on the public sector contracting platform: <https://www.aytomoguer.es/es/fondos-FEDER/gestion-y-seguimiento/contratacion/#adjudicadas>



The projects have been adequately disseminated among the beneficiaries and the general public, thanks to the various publications that have been produced to keep the public informed before, during and after the works have been carried out.



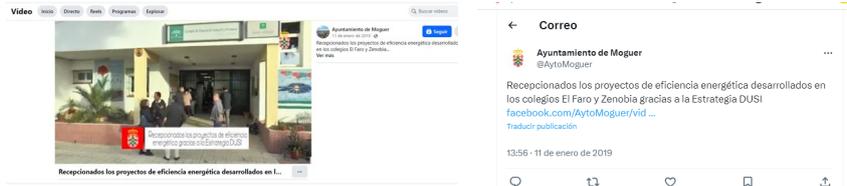
Publications of the actions in Social Networks (Facebook, Instagram and Twitter) from the profile of the City Council:



Video of the reception of the performances posted on Facebook and Twitter, January 2019:

<https://www.facebook.com/AytoMoguer/videos/393370848080949/>

<https://twitter.com/AytoMoguer/status/1083709177065807872>



In addition, a micro video is edited for social networks summarizing the actions carried out:

<https://twitter.com/AytoMoguer/status/1671808832962437121/video/1>



As part of the actions necessary to publicize the project, an advertisement was placed in the provincial press, specifically in the newspaper Huelva Información, on March 13, 2023.



Finally, a provincial radio campaign is being carried out on the Onda Cero radio station, during the week of March 13 to 19, 2023. Broadcast control is provided.

CONTROL DE EMISION		HUELVA OCR FM		marzo 2023	
	Cliente: 820239415-AZAHARA DE COMUNICACION S.A	E Gestore:	HUELVA		
	Anunciante: 988426-DUBUS/MDQUER	Orden:	141518628	Orden externa:	
	Programa:				
	Texto Face:				
	Campaña:	ORDEN N° 37/2023			
Fecha	Duración	Hora de radiaciones		Radiado en fecha	
13/03/2023	20	7:56		1	
14/03/2023	20	10:07		1	
15/03/2023	20	9:29 10:28 12:30		3	
16/03/2023	20	7:56 10:10 11:07		3	
17/03/2023	20	7:56 10:46		2	
18/03/2023	20	9:27 10:16		2	
19/03/2023	20	9:37 11:44		2	
				Total radiado marzo de 2023	
				14	
				Total Radiado en la orden	
				14	

## 2.- THE PERFORMANCE INCORPORATES INNOVATIVE ELEMENTS.

The undertaking of an improvement of these characteristics in educational centers implies as an innovative element, in addition to the awareness of the need for energy efficiency in the whole area of citizenship, the fact that, since these are school buildings, this awareness reaches children and young people, implanting as guidelines in the new generations the need to optimize energy and respect for the environment.

The innovation has been mainly of a technological nature, changing old and very inefficient technology for new LED technology in the lighting of the classrooms, for the most effective and efficient lighting possible, replacing and correcting previous deficiencies. And in the case of CEIP El Faro, it has been complemented with the replacement of the electric oil radiator heating with new heating systems using water radiators, which contributes to a significant reduction in energy consumption.

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

It is estimated that the actions carried out have improved their overall energy ratings by at least one letter on the Energy Rating Scale and are causing a reduction in the carbon footprint generated by energy consumption, as derived from previous studies carried out.

Before the works were carried out, the buildings had a total energy consumption of 798,016.75 kWh per year, placing it in "D" on the Scale (2017 evaluation report).

With the actions carried out, a reduction in consumption of 383,849.45 KWh per year has been achieved, so that the buildings now have an energy rating of "B and C" (depending on the building), meeting the objectives set with the works. The new enclosures have prevented leaks in the air conditioning of the building, improving its energy efficiency.

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

We were faced with municipally owned buildings with inadequate enclosures, which caused cold air to enter the rooms, making it necessary to increase the heating. In addition, the lighting installations were obsolete (fluorescent lights). All this led to increased costs and greater environmental deterioration.

The actions described above have contributed to the improvement of these physical characteristics and of the facilities, making them more energy efficient and obtaining a reduction in annual energy consumption, while improving the comfort and quality of lighting in both schools.

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

The actions in the Educational Centers directly affect the school population (CEIP Zenobia Camprubí - 640 students - CEIP El Faro - 470 students) and the teaching staff, and, indirectly, the entire educational community, which currently represents 20% of the population. Thanks to this contribution from the European Funds, the students and teachers of both schools work in better conditions than before, benefiting their academic performance.

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

This action mainly contemplates the horizontal principle of sustainable development and the cross-cutting objective of mitigation and adaptation to climate change, since its main objective is to reduce carbon emissions into the atmosphere by reducing the energy consumption of municipal buildings.

The degree of contribution of the operation to the horizontal principles is moderate-high. The intervention in these municipal buildings is respectful of equality between women and men and non-discrimination, since it benefits all the people located there in the same way. The dissemination of the actions has been carried out using non-sexist language and images.

In terms of environmental sustainability, the effect of the works is very clear, since both with the replacement of the enclosures and the installation of LED lighting and the replacement of the oil heating, a great reduction in energy consumption is achieved, in accordance with the European Directive 2010/31/EU, which translates into a considerable reduction of CO2 emissions into the atmosphere each year, favoring sustainable development.

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

Synergy can be found in the Regional Government of Andalucía, with the implementation of the Energy Strategy of Andalucía 2020, which developed measures aimed at improving energy efficiency through aid for both private homes and support for companies. Work has also been done to continue optimizing energy consumption in the Administration of the Regional Government of Andalucía, improving the efficiency of its facilities and incorporating

management criteria aimed at energy saving, through the Energy Network of the Regional Government of Andalucía.

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