

Una manera de hacer Europa



BUENAS PRÁCTICAS

Actuaciones Cofinanciadas

Heating boilers replacement, to improve municipal buildings energy efficiency

Albacete Provincial Council

**Programa Operativo
Plurirregional de España**

Año 2022

Fondo Europeo de Desarrollo Regional

HEATING BOILERS REPLACEMENT, TO IMPROVE MUNICIPAL BUILDINGS ENERGY EFFICIENCY: POZOHONDO, SOCOVOS AND HELLÍN.

ALBACETE PROVINCIAL COUNCIL

Provincial Council of Albacete has promoted heating boilers renovation in seven public infrastructures located in three municipalities belonging to Hellín functional area: Pozohondo, Socovos and Hellín.

The replacement of these boilers has allowed to improve existing technology, since the previous infrastructure was outdated. Action has made it possible to increase energy efficiency of these public infrastructures, given that the consumption of this input is reduced, complying with current energy efficiency standards.

It should be noted that, to carry out these improvements in the boilers, two criteria have been followed: the first of them has been that the infrastructures must have children as an audience (not entirely, but they do attend them). The second one is that the infrastructures must be located in spaces where there is a population under risk of suffering from some socioeconomic vulnerability factor.

This double criterion allows prevention work to be carried out in situations of energy poverty, providing alternatives to these cases so that they do not suffer extreme conditions during the winter, and driving these people to go to different public buildings. Furthermore, the environmental efficiency criteria followed by this action allows to reduce economic and environmental cost of turning on the heating in these municipalities.

Action total cost has been of **75.438,78 euros**, of which **80% has been co-financed by European Union thanks to European Fund For Regional Development (FEDER): 60.351,02 euros**.



1. FEDER role in the action has been conveniently disseminated among beneficiaries, potential beneficiaries and general public.

The actions to communicate operation have been the following:

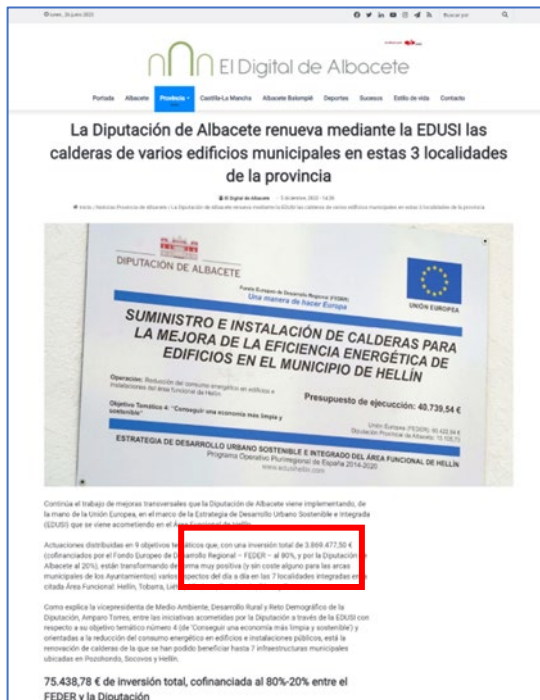
Temporary construction poster



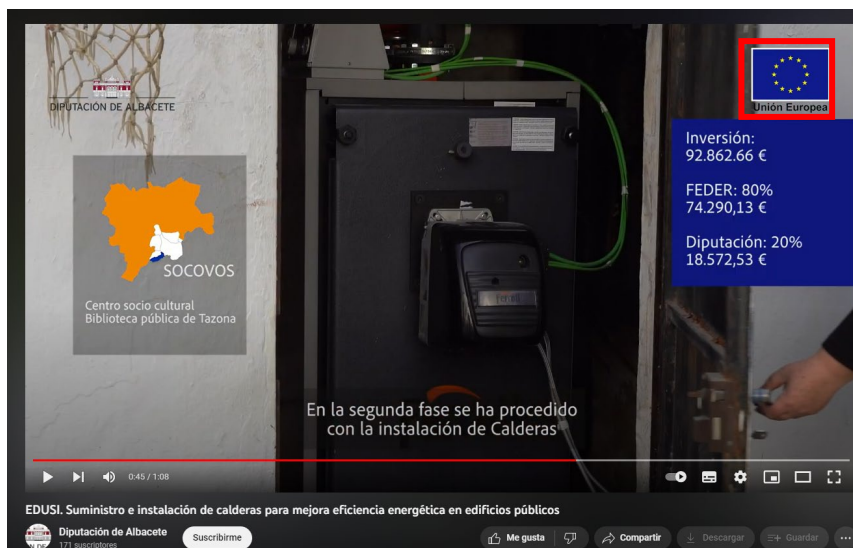
Permanent Plate





Announcement in provincial newspaper and diffusion in social networks



Microvídeo for social networks



Action has its own website section

Fondo Europeo de Desarrollo Regional (FEDER)
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PERIODO 2014-2020 PROGRAMACIÓN GESTIÓN Y SEGUIMIENTO COMUNICACIÓN EVALUACIÓN

Reducción del consumo energético en edificios e instalaciones del Área Funcional de Hellín


Presupuesto de la operación:
286.845,27 euros

- 229.556,22 euros aportados por la Unión Europea (80%)
- 57.289,05 euros aportados por la Diputación Provincial de Albacete (20%)

Centros asociados a la operación:

- Asistencia técnica para la realización de las auditorías energéticas de edificios de determinados municipios del Área Funcional de Hellín: 17.726,50 €
- Suministro e instalación de luminarias para la mejora de la eficiencia energética del alumbrado interior de determinados municipios del Área Funcional de Hellín: 126.560,45 €
- Suministro e instalación de calderas para la mejora de la eficiencia energética de edificios de determinados municipios del Área Funcional de Hellín: 72.456,01 €
- Suministro e instalación de ventanas para la mejora de la eficiencia energética en edificios de determinados municipios del Área Funcional de Hellín: 33.395,53 €

ACTUACIONES PUBLICIDAD: CENTRO MUNICIPAL DE FORMACIÓN



La operación consiste en la mejora de la eficiencia energética en edificios e instalaciones públicas del área funcional de Hellín. Se desarrolla en dos fases:

Una primera fase consistente en la **realización de auditorías energéticas** para determinar el consumo actual de un número determinado de instalaciones y edificios en los espacios públicos seleccionados en función de su gasto energético, así como todas aquellas medidas de actuación a realizar que permitan mejorar la eficiencia energética de dichos edificios e instalaciones. Entre las edificaciones a editar se encuentran: instalaciones deportivas, escuelas infantiles, centros culturales, casas consistoriales, etc.

Tras esta primera fase de auditoría, se desarrollará la segunda fase de la operación consistente en la **realización de las actuaciones** que permitan reducir los consumos energéticos de las edificaciones auditadas. Tal y como establecen los criterios para la selección de operaciones, todas las actuaciones en edificios públicos tomarán como base la clasificación energética inicial y buscarán mejoras significativas (de por lo menos una letra de clasificación energética), de acuerdo con el Real Decreto 235/2003 de 5 abril por el que se aprueba el procedimiento básico para la certificación de la eficiencia energética de los edificios. Una vez finalizada, se llevará a cabo una certificación final de los edificios en los que se ha actuado para determinar los ahorros energéticos conseguidos.

Los edificios pertenecientes a esta actuación son:

Localidad de Pezónhonda:

- Centro Social Cultural.
- Edificio Consistorial.
- Edificio Multifusos (Biblioteca, Guardería y Centro de Internet).

Localidad de Férez:

- Centro Social Cultural.

Localidad de Socovos:

- Casa de la Cultura.
- Centro Social Cultural.
- Biblioteca de Tazona.

Localidad de Hellín:

- Pabellón Polideportivo "Adolfo Suárez".
- Pabellón Polideportivo N°2.
- Pabellón Polideportivo Ito.
- Escuela Infantil "Martinez Parra".
- Escuela Infantil "El Calvario".
- Escuela Infantil "El Rosario".
- Casa de la Cultura.

En estos edificios se auditará el conjunto de instalaciones energéticas de los que dispone como calderas, potencia instalada en calefacción, refrigeración, iluminación o ACS. Se realizará una auditoría completa de la situación energética actual del edificio y se propondrán medidas de eficiencia energética, para, en la fase posterior, llevarlas a cabo.

2. Action incorporates innovative elements

This action has consisted on 7 heating boilers renovation in three municipalities belonging to the functional area of Hellín. Priority has been given to preferential action in facilities dedicated to children, specifically in those that are located in neighborhoods with socioeconomic vulnerability problems, since in these spaces is most necessary to avoid possible energy poverty situations.

The boilers which have been changed:

- Town Hall and multipurpose building of Pozohondo.
- Socovos Sociocultural center.
- Tazona public library (district of Socovos).
- Three child care centers in Hellín (El Calvario, Rosario and Martínez Parras neighborhoods).

The action incorporates innovative elements since it allows improving the energy efficiency of these buildings, reducing the amount of energy consumed, and, therefore the price of electricity bill, an especially relevant issue in a geopolitical context characterized by the increase in raw materials that are due, among other issues, to the increase in the cost of the energy input.

3. Adequacy of the results obtained to the established objectives:

This action main objective was "Improve use of energy efficiency and reducing emissions through innovation and an environmental municipal services smart management as well as sustainable mobility, allowing a reduction of Functional Area contributions to climate change and improving municipal treasuries sustainability", as it is included in the initial EDUSI Strategy. It has been fulfilled since the new boilers allow for lower expenditure to heat public buildings, reducing the consumption they previously made.

In this way, another objective of the action has been to achieve a cleaner and more sustainable economy, capable of reducing energy consumption of buildings and facilities, and making a correct transition towards a low-carbon model.

This has been possible thanks to the fact that the new boilers, thanks to the technology they incorporate, have been able to reduce greenhouse gas emissions compared to the previous ones, since this technology is less polluting and being capable of substantially reducing emissions to the atmosphere.



4. Contribution to a weakness or problem detected at execution scope territory:

At initial EDUSI Strategy, the following problems and weaknesses were identified:

- High energy consumption in public infrastructures
- Need to improve efficiency in energy use and reduction of emissions
- The need to adapt existing infrastructure to new citizen demands

These weaknesses and problems have been resolved, since heating boilers renovation at different public buildings has allowed them to reduce their energy consumption, clearly improving local level energy with corresponding reduction in emissions produced.

From the beginning of the Strategy design process, the need to reduce annual public energy spending was identified, since it required a large number of resources, especially in sports equipment.

Boilers renovation is committed to contributing to energy efficiency, reducing CO2 emissions and lowering the energy bill cost.

Specifically, this action has allowed us to reduce functional area energy consumption by 48,875.26 kWh/year, and emissions by 25.4 tons of CO2 oil equivalent/year.

5. High coverage degree over target population:

With boilers renovation, it has been possible to reduce energy consumption of the previous ones, with the corresponding reduction of the impact that was exerted on the atmosphere.

Furthermore, situations of energy poverty have been prevented, since these installations have been carried out in buildings where children go, and which, in addition, are in spaces that tend to have risk of exclusion situations.

It is important to highlight that the population that has benefited from these actions amounts to 33,804 people and belongs to three municipal areas (Hellín, Pozohondo and Socovos).

6. Consideration of horizontal criteria of equal opportunities and non-discrimination, as well as social responsibility and environmental sustainability:

This action clearly meets the criteria of social responsibility and environmental sustainability, since its main objective is to make more rational use of the municipality energy resources available, both in the dispersed urban centers and in the original city.

Apart from reducing the cost of energy, an essential issue in a geopolitical context characterized by the rise in the price of raw materials, it reduces the environmental impact of consuming this input, substantially decreasing greenhouse gas emissions.

In addition, it has a clear criterion of territorial development, since it has been promoted that this action be carried out mainly in buildings where children usually go (such as nursery schools, socio-cultural centers, etc.) and, in addition, over spaces that tend to harbor vulnerability situations, therefore that this action is key to avoiding energy poverty cases.

7. Synergies with other public intervention policies or instruments

Provincial Council of Albacete is carrying out different actions to reduce the impact of energy consumption both economically and environmentally, promoting different actions that reduce the economic-environmental cost of consuming energy.

For this reason, from the EDUSI of the functional area of Hellín, special emphasis is placed on carrying out different actions that are committed to the economy decarbonization and cleaner and more sustainable models that generally reduce public buildings energy consumption.

Among the actions in terms of energy efficiency at Hellín Functional Area, the replacement of sociocultural center and the Férez Town Hall lights, same as done in the cultural house, the sociocultural center and the library of Pozohondo as well as in different sports infrastructures throughout the functional area.

Finally, it is worth noting the investments that have been made by the European Union and the Provincial Council to reduce energy consumption, such as the renewal of lighting in the streets of Hellín, Liétor, Albatana and Tobarra, actions that have not involved any expense for municipal budgets.

The Provincial Council has an enormous commitment to complying with 2030 Agenda, as well as achieving the Sustainable Development Goals (ODS) of the United Nations Organization (UN), this action being a clear example of how Progress towards them can be made from the provincial public administration.

In this case, in achieving the following ODS:

- ODS 7: Affordable and non-polluting energy
- ODS 11: Sustainable cities and communities



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