Best Practice presented by the General Secretariat of the Regional Ministry of Economy and Finance consisting in the renovation and replacement of the air-conditioning system in the Government of Castilla y León building located at Plaza de Bilbao, no. 3, postcode 09006 Burgos.

The Regional Ministry of Economy and Finance, through its General Secretariat, is carrying out a series of actions aimed at renovating the energy efficiency of buildings owned by the Administration of Castilla y León. This good practice is part of these actions. In the building of the Territorial Delegation of the Government of Castilla y León in Burgos, the current air-conditioning system must be renovated and replaced to improve the energy efficiency of the installation and the building, thus contributing to protecting the environment, and also ensure thermal wellbeing in accordance with the requirements and conditions imposed by the applicable regulations, in addition to ensuring the proper operation and maintenance of the facilities.

This administrative building had an old air-conditioning system with deficiencies in its operation and serious maintenance problems since most of the equipment that makes up the air-conditioning system was discontinued and there were no spare parts available on the market. The performance and efficiency of the installed equipment had been significantly reduced.

Replacement of cooling equipment with aerothermal heat pumps and changing the heating system to condensing boilers will reduce the system's energy demand and therefore consumption, as well as CO2 emissions. This will improve the building's energy rating and meet the objectives of the Europe 2020 Strategy Programme.

The cost of this action is €1,168,709.43, of which the ERDF finances €584,354.72.



New heat pumps (aerothermal)



New indoor units



New individual control systems

This work has cut primary energy consumption by 960,706.00 kWh/year. This is equivalent to a theoretical reduction of final greenhouse gas emissions, calculated based on estimated primary energy savings, of 256.16 tonnes of CO2/year.

This is considered a Good Practice because it meets the following criteria:

1. The action has been appropriately disseminated to beneficiaries, potential beneficiaries and the general public.

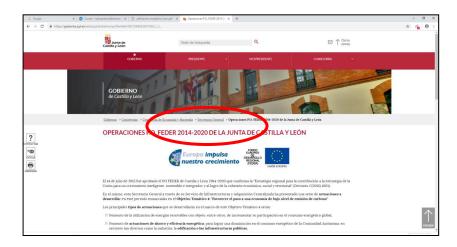
In addition to complying with the regulatory requirements, throughout the entire contracting process, this operation has been publicised on the website of the management centre, the General Secretariat of the Regional Ministry of Economy and Finance,

https://gobierno.jcyl.es/web/jcyl/Gobierno/es/Plantilla100/1284653927695/ / /

Once this action was completed, a video was made and published on the website.

It has also been published on the website of the General Directorate of Budgets and Statistics of the Regional Ministry of Economy and Finance,

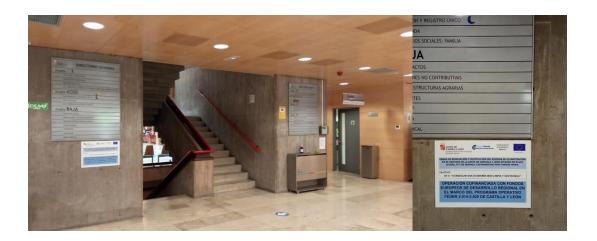
https://hacienda.jcyl.es/web/jcyl/Hacienda/es/Plantilla100/1284305207856/_/_/



The corresponding informative plaque has been placed in the building in order for the ordinary building users, whether civil servants or employees of public body, or the public who come to seek assistance, to be informed that the intervention carried out has been co-financed by the ERDF.







This operation has also been reported in the written press, through the corresponding news articles in different newspapers:





2. The action incorporates innovative elements

This action aimed at renovating the energy efficiency of the building of the Territorial Delegation of the Government of Castilla y León in Burgos, involves updating and modernising the air-conditioning equipment with state-of-the-art equipment and improved performance, according to market supply.

This new air-conditioning system will not only improve energy efficiency, but also provide a major increase in the comfort, thermal wellbeing and health of the building's workers and the members of the public who visit it.

3. Adaptation of the results obtained to the established goals

The objective sought through this action is to adapt the old air-conditioning system with deficiencies in its operation, low energy efficiency and serious maintenance problems, since most of the equipment that makes up the air-conditioning system was discontinued and there were no spare parts available on the market. The renovation and fitting of the system allows the building's Energy Performance Certificate to be improved.

The action performed by the Territorial Delegation of Burgos will achieve an increase in energy efficiency in its field of action, whether public administrations, businesses or citizens, energy savings in primary energy with results in financial savings and final energy, and reducing CO2 atmospheric greenhouse gas emissions.

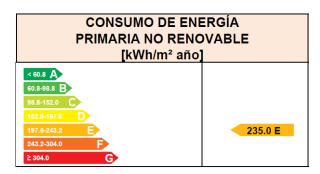
All this makes it possible to achieve the objectives sought, helping to reinforce and strengthen the efficiency and sustainability goals proposed as the ultimate and priority purpose of this operation.

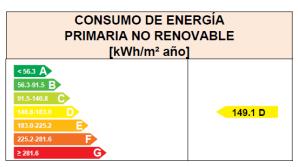
4. Contribution to solving a problem or weakness detected in the territorial scope of implementation

One of the problems with the Regional Administration's buildings is that the existing thermal systems are old, with discontinued equipment and very low performance. The success of the intervention, which is presented as a good practice, is reflected in the results, mentioned above, consisting in updating and modifying the Energy Performance Certificate (EPC).

Not only has a decrease in the demand for energy consumption, and a reduction in environmental effects and financial expense been achieved, but also supply and operation of the system and building that can be classified as more sustainable and environmentally-friendly.

On the one hand, a **reduction in PRIMARY energy consumption** of up to 36.55% per m² of gross floor area in kWh/m² per year is achieved, going from 235.0 kWh/m² per year to 149.1 kWh/m² per year.





There is also a reduction of up to 41.82% in CO_2 atmospheric greenhouse gas emissions per m^2 of gross floor area in kgCO₂/m²/year, going from 44.0 kgCO₂/m²/year to 25.6 kgCO₂/m²/year.

EPC before the action

EMISIONES DE DIÓXIDO DE

CARBONO

[kgCO2/ m² año]

<13.6 A

13.6-22.1 B

22.1-34.0 C

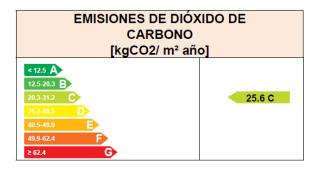
34.0-44.2 D

44.2-54.4 E

54.4-68.0 F

268.0 G

EPC after the action



5. High coverage of the target population.

The installation benefits not only the people who work in the building but also the general public, as captive users of the building, and the urban environment of the city of Burgos by reducing the total CO₂ emissions into the atmosphere.

The impact of the improvements set out falls directly on a building that is occupied by more than 200 permanent workers and on the user/administrator who, continuously and daily use it to manage, along with the Territorial Delegation and the different Territorial Services in Burgos, both administrative procedures and access to information and citizen services provided by the Government of Castilla y León. In normal periods, the influx of public is usually an average of almost 5,000 people a year.

6. Consideration of the cross-cutting equal opportunities and non-discrimination criteria, in addition to social responsibility and environmental sustainability.

From the perspective of applying equal opportunities and non-discrimination criteria, the harmlessness and absence of any negative effect in relation to this horizontal principle of equal opportunities has been guaranteed. Similarly, it can be said that it benefits both men and women equally. In any case, we wanted to preserve the cross-cutting obligation to observe it as an essential principle in its granting, application and development.

The environmental sustainability of the operation is evidenced by the improvements in reduction and harmful emissions in terms of energy consumption and the associated "greenhouse effect" stated in the mandatory update of the building's Energy Performance Certificate.

The advantages of these new systems in the building owned by the Territorial Delegation of Burgos can be briefly summarised as follows: a reduction in consumption due to greater efficiency, savings in maintenance and improved performance, use of energy recuperators, and greater thermal comfort for occupants and users.

7. Synergies with other policies or public intervention instruments.

This operation to renovate and replace the air-conditioning system to improve energy efficiency of the building of the Territorial Delegation of Burgos, reinforces compliance with the measures defined in the Energy Efficiency Strategy of Castilla y León 2020, which was approved in 2018.

This action, which is presented as a good practice, is part of a series of other good practices developed by the Regional Ministry of Economy and Finance, through the General Secretariat, as a clear commitment of the regional administration in the field of energy efficiency with the aim of ensuring a more efficient use of energy and combating climate change in order to promote sustainable economic growth.

This Energy Efficiency Strategy of Castilla y León 2020 also targets the goals set out in the 2030 Agenda and the European 2020 Strategy. Its goals go beyond those set by the European Union with ongoing assessment of the achievements and adjustment of its actions based on the results.

The operation presented—the renovation and replacement of the air-conditioning system to improve energy efficiency in the building owned by the Territorial Delegation of Burgos—also supports the goals of the National Energy Efficiency Action Plan 2017-2020, which is set up as a central tool of energy policy of the Government of Spain, whose implementation makes it possible to achieve the energy saving and efficiency goals resulting from compliance with and observance of European Directives.