



2014-2020 ERDF Operational Programme

European Regional
Development Fund



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EUROPEAN FUNDS

The 2014-2020 ERDF Operational Programme for the Community of Madrid, is an essential strategic benchmark for the regional contribution to reaching the objectives in the area of a smart, sustainable and inclusive growth strategy, endorsed by the Europe 2020 Strategy, which is in line with objectives and priorities established by the Partnership Agreement in Spain for the 2014-2020 period.

2014-2020 ERDF Operational Programme for the Community of Madrid

The strategic lines of the 2014-2020 ERDF Operational Programme for the Community of

Madrid are put into practice through a series of thematic objectives and investment priorities, in line with the strategic guidelines established by the European Commission and the national strategic reference framework. Of all the thematic objectives included in

said operational programme, Canal de Isabel II is beneficiary of the following:

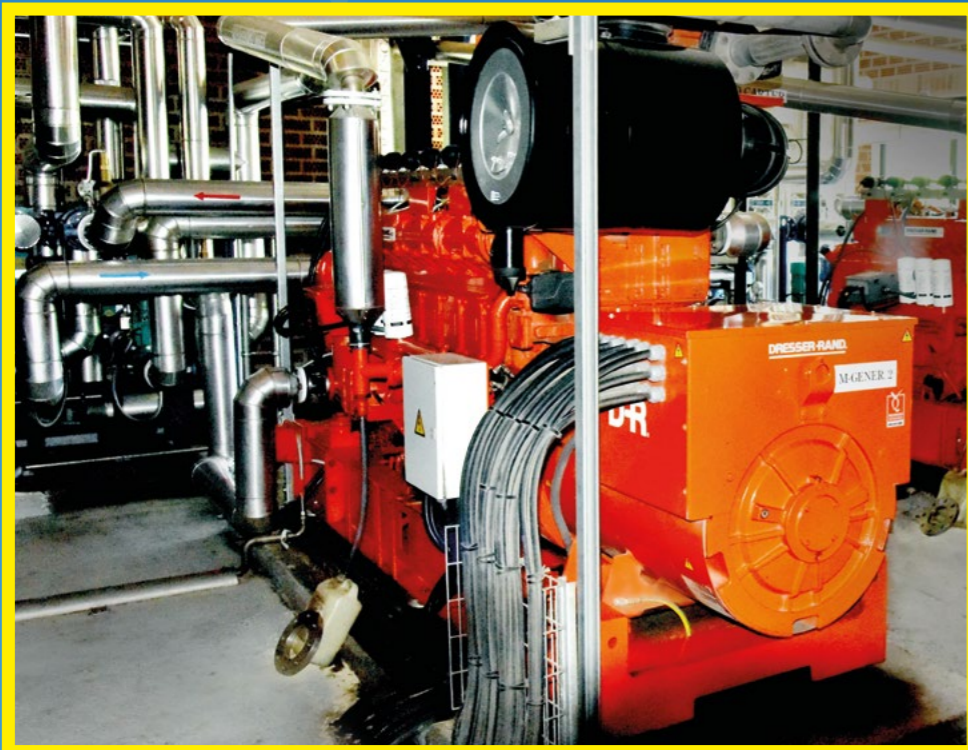
- Thematic Objective 4: «Supporting the shift towards a low-carbon economy in all sectors».

In relation to improved efficiency and energy savings and by replacing conventional energies with renewable energies in public drainage, distribution and waste water treatment systems in the Community of Madrid, Canal de Isabel II's Energy Improvement Plan, included as one of the main points of the company's Strategic Plan, is of particular note, and focuses, among others, on increasing its renewable power generation capacity. With the aim of moving towards a low-carbon economy, Canal de Isabel II falls within Investment Priority 4.c: «Supporting energy efficiency, smart energy management and renewable energy use in public infrastructures, including in public buildings».

More specifically, the projects to be carried out are part of Specific Objective 4.3.2: «Increased use of renewable energy sources for the production of electricity and thermal uses in buildings and in public infrastructures, in particular, promoting small-scale power generation located close to end consumers».

COGENERATION INSTALLATION IN THE ALCALÁ OESTE WASTEWATER TREATMENT PLANT

The aim of installing a cogeneration system is to use the biogas produced in the wastewater treatment plant to generate, on the one hand, the heat required for the anaerobic digestion of wastewater sludge and, on the other, electricity for the plant's own consumption.



Total investment for the project	1,775,430.72 €
Expected ERDF Funds	887,715.36 € (50%)
Work order date	January 2014
Installed power	808 kW
Estimated annual production	4.71 GWh
Equivalent annual production	1,121 households
Total emission reduction (*)	1,163 t of CO₂ eq.

(*) The ratio used is 0.247 kg of CO₂ per kWh, average emissions factor for the Spanish Peninsular Electricity System between 2014 and 2017, obtained from the Spanish Electricity System's Statistics (Red Eléctrica de España, S.A.).

CONSTRUCTION OF THE MINI HYDROELECTRIC PLANT IN VALMAYOR

The aim of the project is to enable the flowing water from the Valmayor reservoir to be used to produce electricity through the execution of a mini hydroelectric plant next to the channel that carries the water from the reservoir to the Valmayor drinking water treatment plant.

This would enable 3 m³/s from the Valmayor reservoir to flow through a turbine and the building to be prepared for the future installation of two more turbines to enable 12 m³/s to be reached.

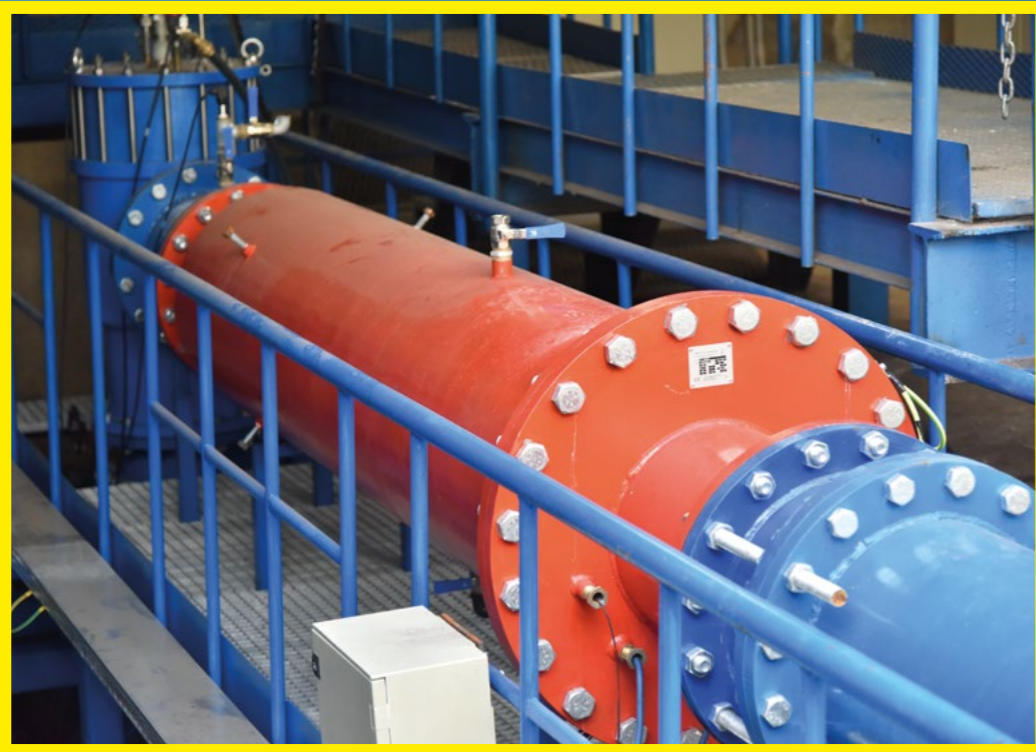
Total investment for the project	6,575,978.46 €
Expected ERDF Funds	3,287,989.23 € (50%)
Work order date	December 2014
Installed power	672 kW
Turbine water flow	3 m³/s (in the future it will be 12 m³/s)
Net head	22.5 m
Estimated annual production	2.54 GWh (in the future it will be 10,15 GWh)
Equivalent annual production	605 households
Total emission reduction (*)	627 t of CO₂ eq.

(*) The ratio used is 0.247 kg of CO₂ per kWh, average emissions factor for the Spanish Peninsular Electricity System between 2014 and 2017, obtained from the Spanish Electricity System's Statistics (Red Eléctrica de España, S.A.).



IMPLEMENTATION OF HYDRAULIC TURBOGENERATOR IN THE PLAZA CASTILLA TANK

The turbogenerator uses the pressure differential at the entrance to the tank to install a 60 kW microturbine to generate electricity for self-consumption.



Total investment for the project	297,465.39 €
Expected ERDF Funds	148,732.70 € (50%)
Work order date	July 2015
Installed power	60 kW
Design flow	0,3 m³/s
Diameter	400 mm
Net head	29 m
Estimated annual production	480,000 kWh
Equivalent annual production	114 households
Total emission reduction (*)	119 t of CO₂ eq.

(*) The ratio used is 0.247 kg of CO₂ per kWh, average emissions factor for the Spanish Peninsular Electricity System between 2014 and 2017, obtained from the Spanish Electricity System's Statistics (Red Eléctrica de España, S.A.).

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