

HOMES THAT CONSUME ALMOST NO ENERGY

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The only residential building in Europe to have achieved [Leed Platinum](#) certification, the highest recognition international to sustainable and efficient construction, is in Tres Cantos, Madrid. This is the Arroyo Bodonal cooperative, whose 80 homes without radiators or air conditioning [they will only pay 37 euros per month](#) on average for electricity.

To achieve this, the members of the cooperative had to face 6% more in net construction costs from the beginning – compared to moderately sustainable buildings –, which

translates into approximately 6,000 euros more per neighbor. As a counterpart, they have an energy saving of 75.64%, (531,371 kWh) and CO2 emissions decrease by 73.20%. The savings in heating and water are between 111,996 and 101,571 euros each year, and together with this the savings in electricity, the investment is amortized in six years.

The European energy performance directive establishes that all new buildings in 2020 must be nZEB or almost zero energy consumption - 2018 in the case of public buildings -, and the Madrid cooperative has gone ahead of the regulations by serving as an example. According to the architect Carlos Nieto, all the details of the design were aligned with sustainability, prioritizing thermal insulation. The building makes use of geothermal energy: 70 holes 130 meters deep were dug under the building, to maintain the temperature of the water through a circuit in the subsoil, and to carry out the thermal exchange without the need for boilers or air conditioning.

There are no comments yet.