

The energy mortgage: the second bill nobody negotiates

When financing a home, all the attention goes to the bank instalment. Yet there is a second recurring cost that stays with the house for its entire service life: the energy needed to live in it comfortably.

When acquiring a home, whether by buying an existing property or building a new one, it is common to turn to a bank and compare the mortgage instalment with the rent currently being paid. That calculation, however, leaves out a cost directly tied to the house that lands on the household budget every month: the energy required to achieve indoor comfort in both winter and summer. At PAPIK Group we call this cost the energy mortgage, and it deserves to be taken seriously, because a poorly insulated house can generate an annual energy bill equal to or greater than the bank instalment itself.

What the energy mortgage depends on

The economic cost associated with energy is what determines the size of this energy mortgage. Reducing it necessarily means improving the home's energy efficiency. That efficiency does not depend on a single element but on the sum of several factors: the quality of the structure and the construction, the efficiency of the heating and cooling systems, the orientation and location of the house, the outdoor climate, and the consumption of appliances and lighting.

How to reduce a home's energy cost

The structure first

The most decisive factor is that the home's structure insulates well from the outdoor climate. This calls for a high-quality building system with a good thermal coefficient, such as the one we apply in our houses. The building envelope must be of equally high quality, and the design should make the most of a south-facing orientation so the windows can capture the sun's warmth during winter. This is the same logic that guides any well-conceived Passivhaus construction and that also shapes energy retrofit projects.

Systems and consumption

The efficiency of the heating systems is equally relevant. An air-source heat pump can deliver 4 kW of heat for every kW of electricity consumed, covering domestic hot water and heating for the whole house at a reduced energy cost. Pellet stoves offer another economical alternative. Added to those savings are the choice of high-efficiency appliances, LED or very low-consumption lighting, and the habit of not leaving lights or devices on longer than necessary.

On-site generation

To complete the picture, energy-generation systems can be installed to approach self-sufficiency or even sell energy back to the public grid.

A commitment that lasts the life of the house

The word mortgage is often used as shorthand for a lifelong commitment, even though mortgages run for terms of between 15 and 35 years. The energy costs needed to keep a home comfortable, by contrast, do last for the entire life of the house. That is why we recommend building with a minimal energy mortgage, even when that decision raises the initial construction cost: over the long term, it proves far more profitable.

The bank instalment ends; the cost of insulating poorly against the climate does not. Getting the structure right is the most effective way to lower a bill that will stay with the house for decades.