Energy efficiency and household economy: **savings and sustainability**

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Is It possible to save on your electricity bill through sustainability? If you've ever asked yourself this question, you should know it's far from silly.

In many cases, energy efficiency seems like a major financial challenge that most of us cannot afford. However, in the following chapters you'll find plenty of options that will allow you to **reduce your electricity bill while also lowering your environmental impact.**

It's true that we'll discuss **significant investments that aren't always feasible,** even though they eventually pay for themselves through reduced consumption, but we'll also share everyday recommendations. Small actions that we can think of as tiny grains of sand, which anyone can take, helping to save the planet while cutting costs.

1.
Thermal insulation as the basis for heating savings

When we talk about energy consumption at home, **we usually think of heating or air conditioning, but rarely of thermal insulation.** Yet improving this aspect can significantly reduce costs and improve comfort, benefiting both your wallet and the environment.

Doors: the first point of heat loss

The heat produced by your heating system or the cool air from your air conditioning escapes through certain heat loss spots. .

Maintaining a consistently pleasant temperature indoors is everyone's ideal. However, there are obstacles—or rather, the lack of certain measures—that stand in the way. What do we mean? Simply that heat or cool air escapes through gaps.

One of the main heat loss spots are doors, particularly at the bottom. The solution is to **install draught excluders that act as a seal against the floor.** This is a very low-cost investment, especially considering the energy savings it can deliver.

Energy-efficient windows: the starting point for energy efficiency

Once you've sealed all the doors in your home, we recommend going a step further and tackling the windows. While this involves a higher expense, windows are a major **heat loss point,** causing a significant effect on indoor temperature.

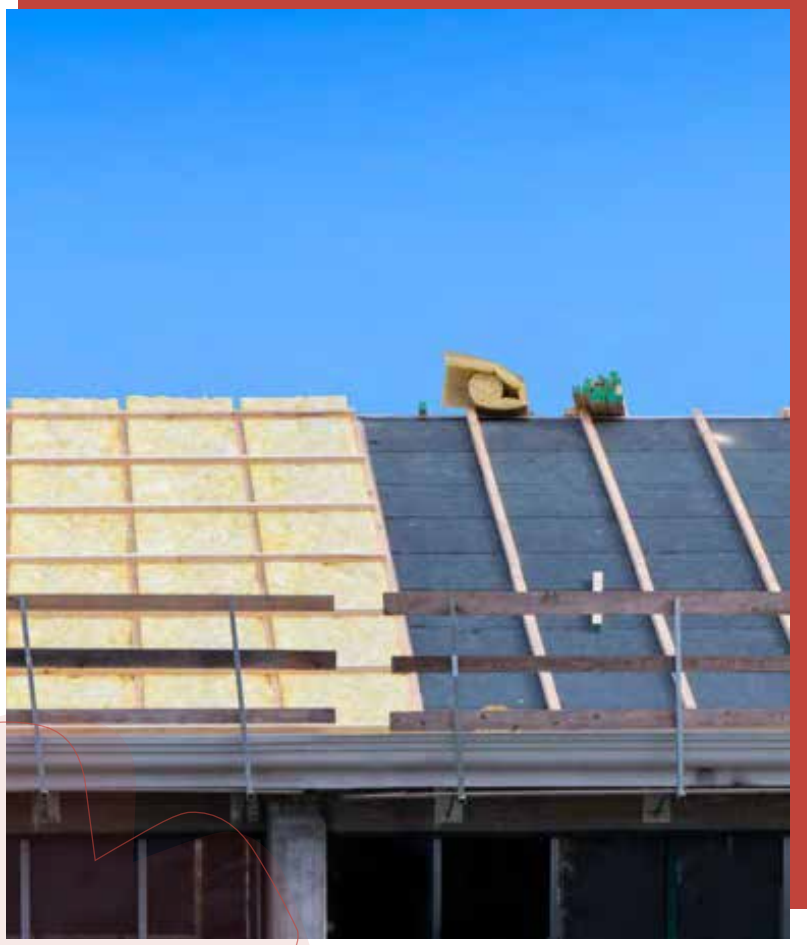
Windows with thermal breaks are the best option here, as they guarantee complete insulation, which undeniably means savings on heating and air conditioning.

Thermal curtains: an extra boost for maintaining temperature

Although this clashes with another key point in energy saving, which is making the most of natural light (something we'll talk about later), **thermal curtains, thicker than usual and made from different materials, are another great solution.**

In this case, we're refer specifically to the summer months, when any attempt to block the sun's rays from entering your home is welcome.

Thermal curtains can help reduce heat, but they should be managed wisely. The aim is to let in as much natural light as possible, avoiding the hottest hours of the day.

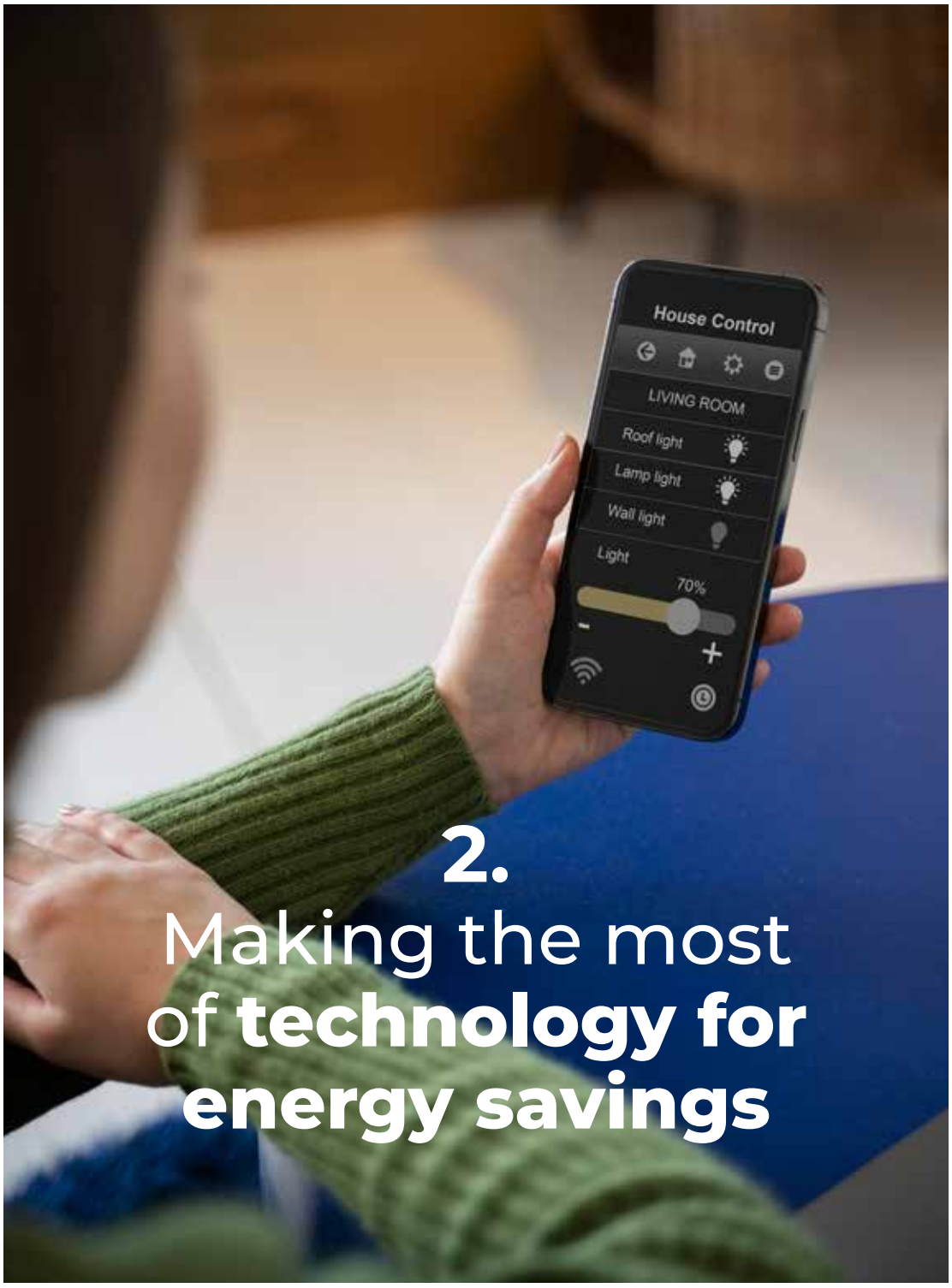


Facades and roofs: an impenetrable barrier against cold

Finally, let's mention a more expensive investment that usually doesn't depend on you, but is worth highlighting. We're talking about **insulation in facades and roofs,** something many homes lack.

Do you know what proportion of energy is lost because of this? Almost 70%. Surprising, isn't it?

Imagine the savings on heating and air conditioning. So, if you have the chance, don't hesitate.



2. Making the most of **technology for energy savings**

Technology has become essential in our lives today, often despite its high energy consumption. However, in recent times **it has emerged as a key ally for sustainability and savings**—provided we have the right devices and choose certain household appliances wisely.

Smart devices to schedule consumption

Nowadays, **there are devices designed specifically to help us use energy efficiently.** In other words, they maintain their usual function but add a most valuable feature for saving: the ability to regulate consumption according to our specific needs.

Timers and programmable plugs: using appliances only when needed.

Timers have existed for decades—though they've evolved over the years—and are a clear example of how to use appliances only when necessary. There are many possible applications, but in some cases they're especially useful. **Which appliances do you use them with, or think you could?**

Electric water heaters and boilers are among the most common uses for this technology. If you have a regular shower schedule, simply set them to switch on an hour before you bathe, so **you have hot water without wasting energy the rest of the day.**

Let there be light: bulbs that do just what's needed.

Smart bulbs are another solution to high energy consumption. Sometimes, programming your home lighting or adjusting its brightness as needed is essential to avoid wasting unnecessary hours of light. In short, any programmable device proves useful when it comes to saving energy.

Being able to plan the exact moment you'll use an electrical device helps reduce both costs and pollution.

LED lighting: the only truly suitable option in every respect

While most options and proposals have their pros and cons, there's one resource that is light years ahead of the rest – and never has the phrase been more fitting. **LED bulbs are vastly more durable, far less polluting, and their energy use is significantly lower** compared to halogen tubes and other traditional bulbs.

Moreover, LED lights come in countless shapes and applications, can also be programmable, and offer excellent performance.

Monitoring your energy use with specific devices

Did you know there are devices specifically designed to measure electricity usage anywhere in your home? Using them at home can make you **much more aware of your monthly energy consumption**—even weekly or daily—allowing you to compare and identify which actions help reduce your electricity bill and which ones increase it.

Savings and sustainability: the two-in-one benefit of efficient appliances

By now, you're probably familiar with the **energy efficiency labels on household appliances.** Of course, this is a factor that significantly affects the purchase price, but don't forget it also impacts your daily energy use and, consequently, your electricity bill.

As with most things, **this comes down to investment.** If you can spend a little more on energy-efficient appliances, you'll see the difference every month on your bill. The gap between high-consumption and low-consumption appliances is striking, and the benefits are both global and personal.

The fridge: the star of your electricity bill

If there's one appliance that plays a leading role in your bill, we all know which one it is. The fridge—and the freezer, if you have one—are **the items that, logically, consume the most electricity** because they're permanently connected.

Clearly, we can't do without them; disconnecting them would mean significant food waste. However, **adjusting the temperature can help with savings and sustainability:** keep your fridge between 3°C and 7°C and your freezer at -18°C.

For every degree you lower the temperature of your fridge or freezer, you increase electricity consumption by 5%.

Air conditioning: a matter of responsibility

When it comes to temperature, **a single degree can make a big difference to your monthly bill** and your home's environmental impact. Air conditioning is the second clearest example.

Although it may also be needed in winter, this appliance is far more widely used in summer, when the stifling heat makes us lose our cool and almost turn it into a deity. **Setting it to a comfortable temperature (between 24°C and 26°C) and avoiding heat loss spots in your home will make you an ideal user.**

Energy efficiency labelling: the sustainability bible

Never ignore energy efficiency labels when buying an appliance. This classification ranges from A (green) to G (red), depending on the electricity consumption of each appliance.

Appliances in the top two positions (A and B) generate minimal consumption within their category, while those in C and D offer acceptable levels. **The ones in the last three options have a significant negative impact on both your bill and the environment.**

Give this small label the importance it deserves.

3. Energy bills as a barrier to savings

Electricity companies are fully aware of the value of the service they provide and will try to maximise their profits through billing. However, over time, new organisations have emerged offering cheaper alternatives to traditional providers. **Giving them a chance could make a real difference to your monthly expenses.**

Compare prices and consumption across providers

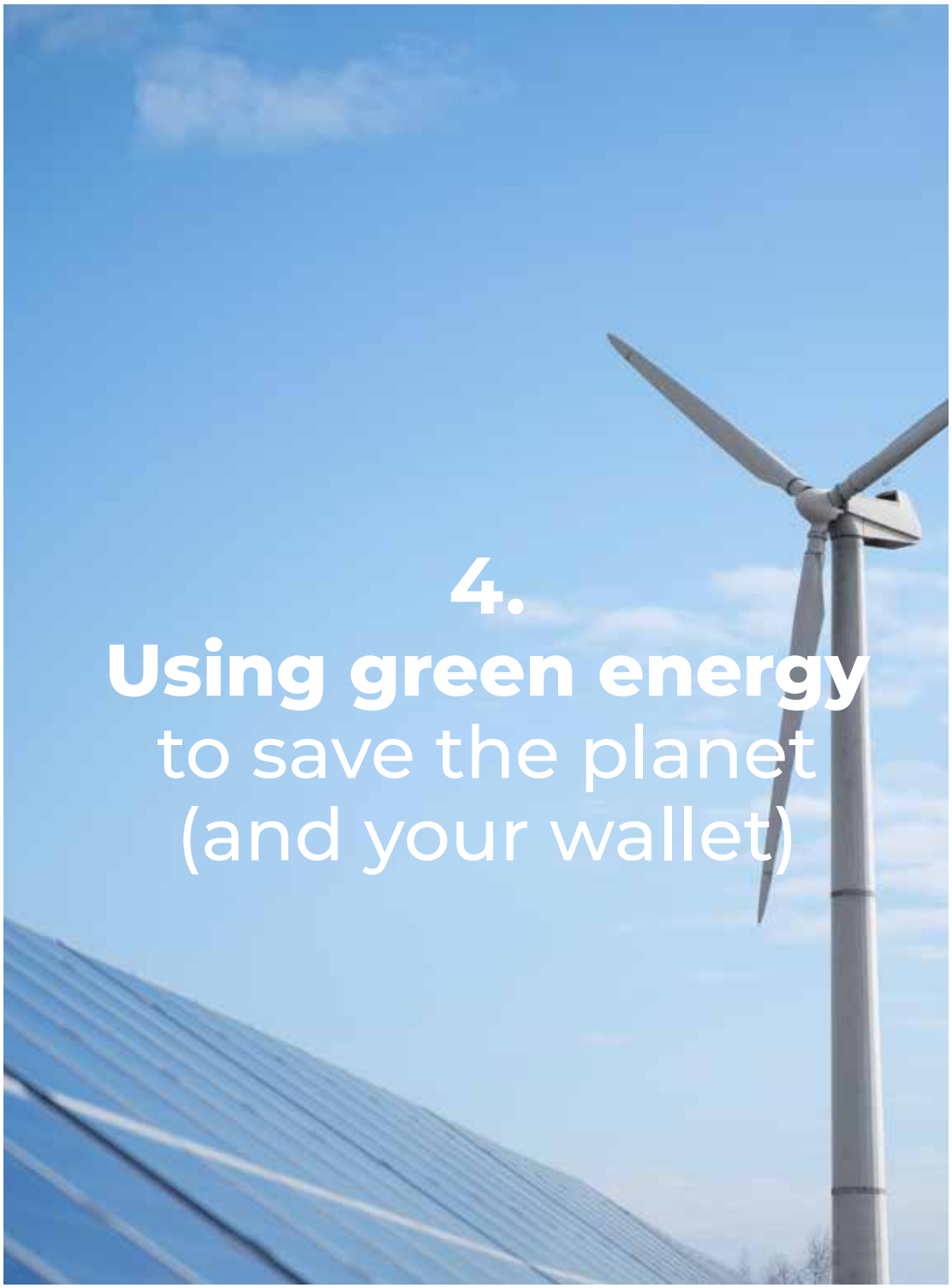
To do this, simply find all the options available for your home—as most energy companies don't cover every area—and compare them. **Pay attention to the price per kWh and choose the most economical option.**

You won't find huge differences, especially after recent price hikes and those expected in the future, but **even small savings add up over the year**, and sometimes even month by month

Look for efficient and sustainable companies

We've suggested comparing providers to choose the best price for your electricity bill, but what does sustainability have to do with this? Quite a lot. **New companies are emerging that offer energy services sustainably,** and they're often more affordable too.

If you have the chance to install solar panels managed by a sustainable, cost-effective energy company, don't hesitate for a second.



4.
Using green energy to save the planet (and your wallet)

Up to now, we've discussed various investments that can ultimately lead to savings on your energy bill. In this chapter, we're taking things up a notch to a level of spending that, unfortunately, not everyone can afford. However, if you're in a position to do so, **your electricity consumption will be drastically reduced and your environmental impact will be minimal.**

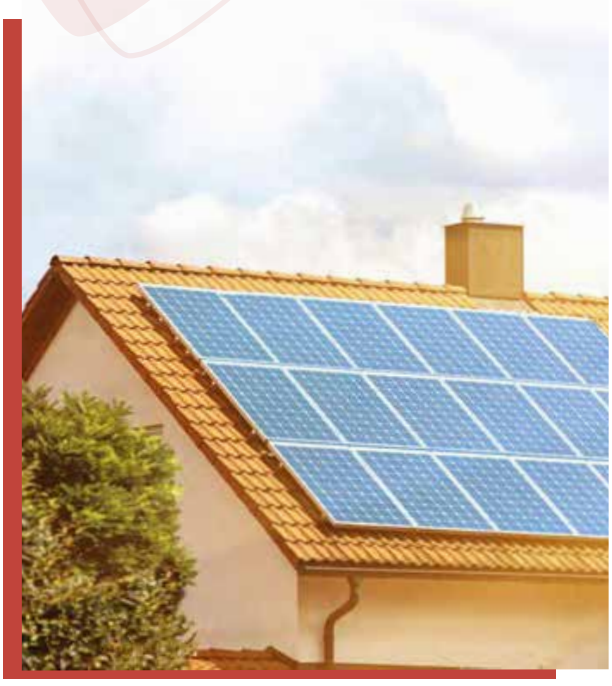
We're talking about so-called green or renewable energies and all the benefits they bring, both for those who adopt them and for the planet. Some are more accessible than others, and many can be combined. The reality is that any of them will help fight climate change and reduce your monthly bills.

Geothermal energy: the power beneath your home

Geothermal energy is one of the most efficient sources, although it cannot yet be implemented in every type of property – and not only because of the installation cost. It involves harnessing underground heat to regulate a home's ambient temperature and to heat water.

Installation requires **a minimum depth of around one and a half metres, although in most cases the drilling goes much deeper to reach higher temperatures,** which can then feed underfloor heating systems. A heat pump manages the earth's temperature to meet the home's needs.

Considering the required investment, geothermal energy is among the most expensive renewable technologies, yet it offers a quick return and long-lasting performance.



Solar energy: a smart investment

Solar energy is a more affordable option than geothermal energy, though it still represents a significant outlay. Nevertheless, it is becoming increasingly common, not only in detached houses but also in blocks of flats, The reality is that any of them will help in the fight against climate change and reduce your monthly bills The most common approach is to use a company that handles installation and energy distribution at a cost far lower than traditional bills. However, if you have the necessary knowledge and DIY skills, you can also install it yourself.

Aerothermal energy: a natural, inexhaustible resource

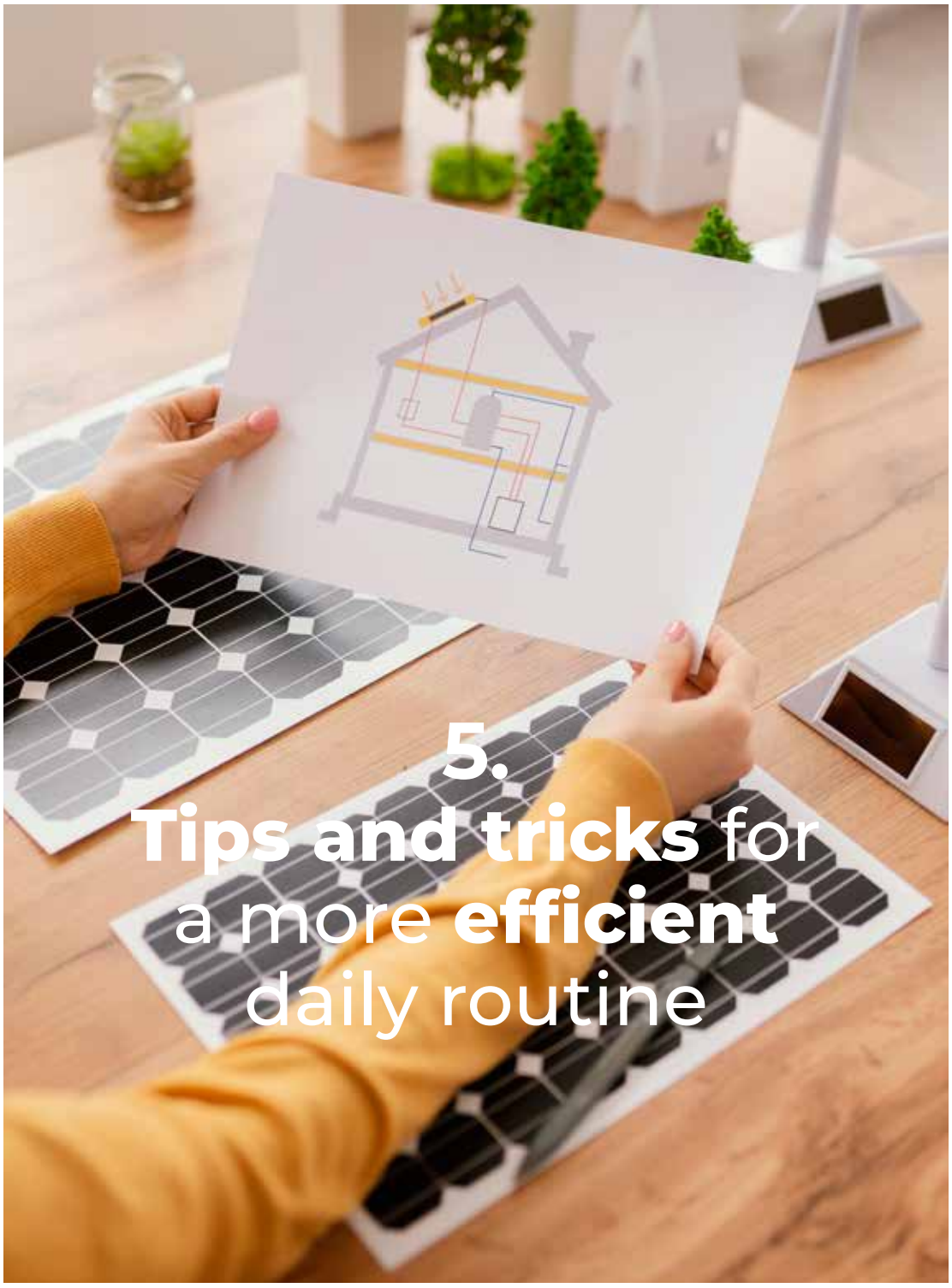
A heat pump, similar to those used in geothermal systems but on a smaller scale, or in large air-conditioning units, is the cornerstone of aerothermal systems.

A refrigerant gas, compressed at very low temperature, extracts heat from the outside air to create a comfortable indoor environment and heat the water you use for showers. **Almost 80% of the energy in the air**, regardless of its temperature, is harnessed.

Biomass: the most economical option for winter

When it comes to heating with renewable energy, biomass is the cheapest option. It consists of **agricultural waste used as a natural resource to fuel a fireplace** which, although not suitable for every home, is becoming increasingly easy to install.

This is an option that most households can afford, replacing electric or gas heating and the pollution they generate. **In winter, it's more than enough to create a cosy atmosphere at home, with lower costs** than other systems.



5. **Tips and tricks** for a more **efficient** daily routine

Have you ever wondered what you can do day-to-day to reduce pollution while saving on your electricity bill? The truth is, beyond all the options we've mentioned (some more feasible than others) **there are small habits that will help you achieve this** gradually, and the planet will thank you.

Cook efficiently: the new way to save

Let's start with **some tips to make cooking more sustainable without disrupting your daily routine.** Perhaps the hardest part is cooking with gas; although it may seem old-fashioned, it's cheaper and less polluting than ceramic hobs or induction plates, no matter how efficient they are.

If it's too late for that and you've already switched from gas, try using **pots and pans that are larger than the burners,** so cooking is faster and you save up to 20% energy. Even more efficient—up to 60% savings—is cooking in pressure cookers, keeping them covered and turning off the heat before finishing so cooking continues with stored heat.

And if you choose between the oven and the microwave, opting for the latter is a big favour to the planet.

Dishwashers: yes, but responsibly

Some recommendations may seem obvious, but the rush of daily life can lead us to waste more energy than we should. The dishwasher is a prime example.

If you load it too lightly, you waste energy and water. If you overload it, the wash won't be perfect and you'll have to repeat it.

Sometimes, thinking twice is all it takes.

How to reduce energy consumption when using your washing machine

Whenever possible, wash in cold water. You'd be surprised how much energy you can save this way: up to 85% of consumption is used just to heat the water. Also, contrary to popular belief, quick washes often use more energy than some slower options. **The Eco mode, now available on most machines, is the most efficient—as its name suggests.**

And what about the tumble dryer? The best options are, in this order, to hang clothes in the sun, use heating for drying, choose a gas-powered dryer, or opt for an electric one with the highest possible energy efficiency rating. **It may be more convenient, but savings and sustainability matter too.**

Maintenance and cleaning of devices: a little-known trick

Here's something not everyone knows: many appliances are far more efficient when properly maintained. For example, **fridges and freezers consume more energy when their walls are covered in ice,** and although frost-free models are increasingly common, many older ones remain.

Cleaning filters in air conditioners and dryers or removing limescale from washing machines are other examples of conscious maintenance.

Residual energy: the grain of sand that becomes a mountain

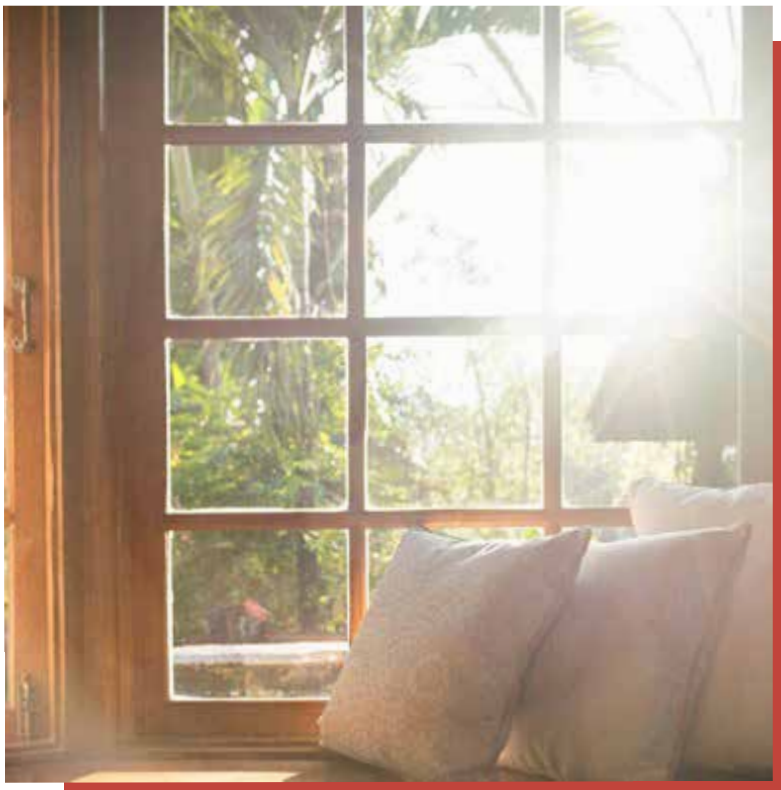
Many of us have thought it was a myth that the tiny standby lights on TVs, consoles or stereos consume energy. But logic tells us that **where there's a light, there's consumption—and however small, if it's unnecessary, it's neither sustainable nor economical.**

Do you know how much your router consumes? Around £15–£20 a year. If that seems little, think of families who could use every penny. If you're away for a long weekend, it costs nothing to switch it off—and if a neighbour is using it without permission, they might think twice. Power strips with switches make this kind of saving easy, not just for TVs and routers but for any appliance, especially overnight.

How to make the most of your home's space to save on lighting

This is one of the simplest gestures for saving energy. **Every minute you use natural light is a minute you don't consume electricity.**

If you work from home or spend the day there, always consider the orientation of your windows and your lighting needs. Placing your desk near a source of natural light may seem trivial, but it can significantly reduce your energy bill.



6. Sustainability and economic savings: collateral benefits

In summary, if we could draw just one conclusion from this document, it would be that, generally speaking, **saving on energy bills and sustainability go hand in hand.** Energy efficiency is based primarily on reducing energy consumption and increasing the use of renewable sources. In both cases, we're talking about lowering economic and environmental impact at the same time. **Remember it's not only about major investments: every small action counts for your wellbeing and for the planet**