The benefits of solar panels for your home

29 Aug 2023

The use of solar energy is growing steadily in France. Solar panels are being installed in both urban and rural areas, from the side of highways to agricultural land, and even the roofs of homes. Figures from the Photovoltaic Solar Energy Observatory show a 64% increase in residential rooftop installations in France between 2014 and 2020. But what are the benefits of solar energy for your home? Let's find out.

What is photovoltaic solar energy?

Photovoltaic solar energy is generated thanks to a technology that transforms **solar radiation** into **electricity.** This **renewable energy** is an alternative to fossil fuels, which are known to contribute to global warming.

According to the International Energy Agency (IEA), global **solar energy potential** will reach **2,350 GW** by 2027. That means it will surpass the electricity generation capacity of hydroelectric, coal, and natural gas.

How does it work?

Solar panels are designed to capture sunlight and convert it into electricity:

1. **Photovoltaic** cells produce direct current when exposed to sunlight.
2. This direct current is converted to **alternating current** by an inverter.
3. The resulting **electricity** can be used to power electrical appliances – but also to light, heat and cool your home!

Savings on your energy bills

Unlike traditional energy sources that rely on expensive fuel supplies, solar energy is **readily available** and **abundant.** By harnessing the power of sunlight around your home to generate your own electricity, you can reduce your energy bills and save money.

Despite fluctuating prices, which rose for the first time in 2023, **solar energy remains cheaper** than fossil fuels (nuclear, gas, or coal). And like in other countries, the French government has introduced a series of **financial incentives** (including tax credits and subsidies) to encourage such investments.

As for **installation costs**, they inevitably **pay for themselves** because solar panels have a lifespan of between 25 and 30 years. Some models can even last up to 50 years!

A reduced environmental footprint

Installing solar panels on the roof of your home is a positive step toward protecting the environment. They allow you to produce solar energy while **considerably reducing emissions of CO_2** and other air pollutants. Using solar power for your home's energy needs is a great way to help limit the **greenhouse gas emissions** responsible for climate change.

Having solar panels on your roof is also a way to **raise awareness:** it shows your neighbors that this green technology exists and is accessible.

Did you know?

With a **monitoring system**, you can track, manage, and optimize your solar energy production and consumption!

Limited energy dependency

Solar self-consumption reduces your dependence on fossil fuels. **Producing your own energy** is even more beneficial for people living in regions with frequent power outages or in remote areas with limited access to electricity.

In addition, you can store **excess solar energy** in a solar battery or resell it. By storing surplus energy, you can both optimize your consumption and ensure a **steady supply** of solar energy during periods of low sunlight.

A bright idea

For an (almost) energy-self-sufficient home, combine your photovoltaic panels with good **insulation** and use components and materials with low energy consumption!

Added value for your property

Another great benefit of installing solar panels is improving the **green credentials** of your home.

What are green credentials? ADEME (the French Environment and Energy Management Agency) defines it as "value added to a property through **improved environmental performance**." It can also refer to the added value associated with the good energy performances of your home.

This added value is estimated by MaPrimeRénov (the French government's renovation grant scheme) at between 15% and 25%. This is formalized in the **Energy Performance Certificate** (DPE) – a mandatory document when selling your property in France.

Last but not least, solar energy has a lot to offer from an **aesthetic** and **practical** point of view. After all, photovoltaic panels are:

- easy to maintain
- adjustable in position and size
- adaptable to different locations (yards, roofs, balconies)
- discreet
- long-lasting

Are you interested in solar energy? Voltalia will assist you with your project, from the preliminary study to the installation of your photovoltaic panels. We can even go one step further and help you manage your consumption. Want to find out more?

Let's talk!