



PRESS RELEASE



DECARBONISATION AND SUSTAINABLE INVESTMENT: AHTECH® TECHNOLOGY FOR THE ENERGY TRANSITION

The energy transition is held back by limited renewable technologies that cover only a small part of the energy demand of buildings and are uneconomical or complex to install.

Solar panels are quick to install. Those designed with aHTech® technology represent a more virtuous evolution in renewable energy solutions, as they produce 4 times more energy than traditional photovoltaic panels, the energy produced per useful m2 is higher and cheaper and installations pay for themselves in 4 to 6 years.

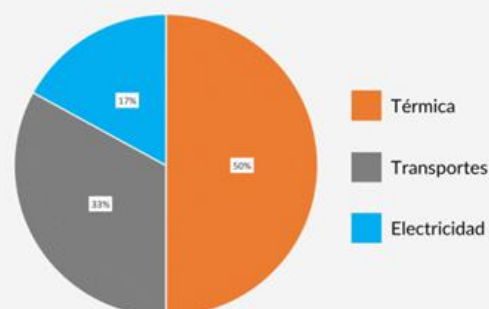
Thinking about your energy means thinking about your electrical and thermal demand.

'Year after year, we are recording consecutive records in the renewable energy sector. In fact, renewables have made fantastic progress. They outperform all other fuels in terms of growth and competitiveness (...) but progress in the electricity sector is only a small part of the equation. Not to change the entire energy system is to be blind to reality,' warns Rana Adib, executive director of REN21.

In fact, to think of energy only in terms of electricity is to forget an important part of what constitutes total energy demand. According to the Global Renewable Energy Outlook 2020, jointly produced by the International Energy Agency (IRENA), the International Energy Agency (IEA) and the Renewable Energy Policy Network for the 21st Century (REN21), heat accounts for more than 50% of the total energy we consume worldwide, three times more than electricity.

Distribución de la demanda energética mundial

Informe 2021: Situación mundial de los consumos energéticos. IRENA, AIE y REN21





Currently, most renewable energy use is in the electricity sector, where it continues to grow rapidly. One of the main reasons for the low penetration of renewables in thermal end-uses is the lack of supportive policies in these sectors.

It is therefore necessary in decarbonisation plans to develop sustainable, emission-free renewable heat and power generation systems. According to the same report: 'The push for photovoltaics masks a significant lag in the heating, cooling and transport sectors. It would be short-sighted to celebrate the progress of the PV sector without acknowledging the alarmingly low and slow uptake of renewables in the above sectors'. Electricity use, for example for lighting, household appliances and industrial equipment, accounts for only 17% of global final energy demand, while heating, cooling and transport account for up to 83% of the energy we consume. The share of renewables in heating and cooling is low (10.1%) and hardly increasing, although this sector accounts for more than half of total energy demand.

The share of renewables in final energy demand varies according to energy use. The largest share of renewable energy use is in electricity production (excluding electricity for heating, cooling and transport), such as lighting and appliances in buildings, where it continues to grow rapidly. However, in thermal production, which includes space and water heating, space cooling and industrial process heat, accounted for more than half (51%) of the TRP; of this total, only about 10.1% was supplied by renewables.

By proposing only an electricity response we are partially addressing the issue of decarbonisation.

If we are to achieve a global energy transition, to meet the ambitious 2050 targets set by COP21, we need to produce energy from renewable sources, but more specifically we need to bring together 3 essential attributes. Firstly, we need an efficient system: we need a system that can generate renewable energy and convert it, as efficiently as possible, into useful energy ready for consumption. But also a system that is scalable on a large scale, i.e. practical and easy to implement in the manufacturing process, installation and end use: with global energy consumption so widespread around the world for different uses, we need a system that, regardless of location, type of consumption or even financial means available, can be easily implemented and provide energy directly. Finally, we need a system that is cost-effective: this means that not only must we produce more energy, but the energy we consume, we must do so at the lowest possible cost. In short, we need a renewable energy system that is efficient, scalable and cost-effective.

Existing solar technologies to meet the challenge: an insufficient and partial response.

Now that we know the keys we need to have green energy by making a sustainable investment, let's look at the solar innovations and technologies on the market. First of all, we have the photovoltaic panel that everyone is familiar with, so much so that its technology has become democratised. Without going into the details of photovoltaic technology, we know that it is a solar technology that, thanks to the photovoltaic cells that compose it, absorbs solar energy to convert it into electricity. And only into electricity. However, as we have said before, talking only about electricity for energy and decarbonisation is not a sufficient answer, as it only addresses 17% of the problem.



Moreover, it is a double whammy for photovoltaics with global warming. In fact, solar energy production by photovoltaics will be affected by global warming, as the performance of its cells decreases with heat, as the MIT report on the performance of photovoltaics in the face of rising temperatures indicates.

Turning now to the solar thermal panel, the answer offered is also only partial, as it only produces hot water. To have a complete answer, you will have to invest in a solution that includes both photovoltaic and thermal panels, while the available installation surface area is often not sufficient to house both technologies and therefore produce the energy corresponding to your consumption. In short, it would be a double investment for the company or industry that would not be able to meet its overall energy demand because it would lack the space to install a sufficient number of photovoltaic and thermal panels.

Hybrid solar panels with aHTech® technology, a sustainable investment for the energy transition.

With this statement, I would like to introduce you to aHTech®. Our most advanced solar technology available on the market. aHTech® stands for Abora Hybrid Technology. aHTech® is the technology that our engineers have developed and that is used at the heart of every hybrid solar panel that we manufacture, at our production facility located in Spain.

If we go back to the attributes needed for a renewable energy system to truly disrupt the market and achieve the energy transition, we said we needed an efficient system: aHTech® solar panels have an incredible 89% efficiency. Solar PV panels have an efficiency of around 20%, 21% at best, which means that 80% of the remaining energy is lost as heat or reflection. What we do at Abora is that we place a thermal collector on the back of the PV modules and insulate the panel to prevent as much heat loss as possible, which allows us to convert an additional 70% of the incoming radiation into energy. Combined with the 19% efficiency of the PV modules, this gives a total efficiency of 89% per panel. Therefore, our hybrid solar panels produce as much electrical energy as thermal energy. And if you recall from the introductory graph, electricity accounts for 22%, and heating 49% of the world's total energy consumption, which we can supply directly from our panels.

That's why you need a system that is scalable and practical: at Abora we reduce installation time and effort for the convenience of our installation partners. aHTech® panels are designed to fit the standard dimensions of the solar industry. In addition, we design and supply quick connect systems, provide frame structures and quick assembly kits with all the necessary components. Everything at Abora is designed to increase the convenience of installers, so that even large-scale installations can be completed in record time.

We provide technical support to the partners we work with around the world to distribute our technology. By taking care of our network, we benefit from their direct and honest feedback on day-to-day operations, which allows us to continuously improve and adapt our solutions.

In addition, it is the most cost-effective solar panel on the market. Because aHTech® solar installations pay for themselves within 4 to 6 years, and the panels have a lifetime of 25 years. So with Abora's hybrid solar panels, you can save a lot of money from day one.



Finally, the hybrid solar panel is a winning combination: a combination of two solar panels in 1 that offers the best cost-effectiveness on the market and the best performance compared to its competitors, 89% efficiency to be exact, and produces 100% renewable electrical and thermal energy. It is the solar energy solution of tomorrow's world.

Today, the world is facing an energy challenge and we are not meeting half of it by focusing solely on electrical energy. Hybrid solar panels offer a complete answer to this challenge: by investing in this technology, you are betting on the future. So why choose between two options when you have a solution that offers you both options with greater efficiency and productivity?

About Abora Solar

Abora Solar, a Spanish manufacturer of hybrid solar panels, is an innovative and visionary company in the field of renewable energies, more specifically in the solar energy sector. Founded in 2017, the Spanish manufacturer has quickly positioned itself as a major player in the development of sustainable and high-performance solar solutions.

At the heart of Abora Solar's identity is a global approach to solar energy, offering the latest generation hybrid solar panel with the highest performance on the market, while providing a vision that encompasses the entire process: providing technical support in sizing and design and monitoring the operation of the installation. This allows the company to offer its customers, through its partners, turnkey solutions, including financing, for self-consumption projects in the residential, tertiary, industrial and heat network sectors.

In short, Abora Solar faces the future of solar energy, combining technological innovation with a deep commitment to the environment, accessibility and the improvement of society. The company's ambition is to be a major player in the energy transition towards a cleaner and more sustainable future.

More information about the company and our technology can be found on our website, where you can see examples of the more than 300 installations executed with our aHTech® panel, including the largest hybrid solar installation in the world.