



hero.flat: for all surfaces

Real energy independence is possible

The rising cost of energy has been making headlines throughout Europe and beyond in recent months. But is heating the forgotten element in the drive towards net zero and can solar help drive down costs and take us a step closer to a greener way of living? PES was keen to get the thoughts of Dr Heiko Schwertner, Vice President Logic Swiss, on the subject.



PES: A warm welcome to PES Solar Heiko, I'm looking forward to getting to know more about Logic Swiss today. It would be good to begin with a short introduction to the company if you wouldn't mind?

Dr. Heiko Schwertner: Thank you, we are excited for this great opportunity. We are a Swiss company driven by a common goal; to make renewable energy available to everyone at an affordable price, which is why we invented our patented hero. products. Our main focus is to develop and optimize these solutions, which we sell through subsidiaries in Europe.

PES: Solar is of course an important part of the drive towards net zero, but how do you see the development in Europe?

HS: Solar, and renewable energy in general, is a huge topic throughout Europe. Trends like digitalization and e-mobility require enormous amounts of energy. However, the current energy crisis has highlighted a significant lack of available renewables. Renewable energy sources are the only sustainable way to cover these needs. Therefore, throughout Europe there are various regulations pushing solar.

Look at Switzerland, our home market, for example. The government has realized that solar will play an important role in reaching the net zero goal, and people have understood that they can save money and protect the planet by using solar. So, it is a win-win situation.

But what everybody forgets is heating, where, compared to electricity, only a fraction is produced through renewable solutions. At the beginning of this year, we realized how dependent we are on imports of gas and other sources in order to be able to heat our buildings. To reduce this dependency, we have to produce not only our own electrical, but



Dr. Heiko Schwertner

also thermal energy. This is why we developed our hero. modules, which combine both electrical and thermal energy.

PES: The combination of electricity and heat is interesting. Can you explain how this works?

HS: With our hero. modules we successfully combined multiple energy sources in one compact module. Our hero.flat module is a PV module, which produces electrical and thermal energy, thanks to the integrated cooling unit. In addition, the cooling unit increases the efficiency and life span of the solar cells. Along with hero.flat, we also developed the hero.wind module. It combines PV, heat and wind energy and can produce electricity around the clock, even at night and during winter. So, we took that win-win situation and further increased the gain for both sides.

PES: What type of savings can homeowners expect to make by opting for hero. modules?

HS: In the short-term, a lot of countries are offering subsidies on a federal and local level, which already cover a good proportion of the initial installation costs. However, the real benefit comes in the long run, when the initial investment generates a return on and the owners can actually earn money with our hero. solutions. This might sound too good to be true, but thanks to reduced electricity and heating bills, and the steadily increasing energy prices, it is realistic.

PES: What about installation though? Does the cost of this negate the savings that can be made by opting for hero.?

HS: Installation is quick and simple. Thanks to the easy mounting system anyone can install the hero. system, which makes the installation quick and less cost intensive. This is the good news for the homeowner and the installation partner as only a little experience is required.

We also have interesting business opportunities to make our partners even happier.



Installation of hero.wind

PES: On domestic properties where roof space is quite minimal compared to larger commercial situations, windows and chimneys sometimes act as a barrier to panel installation, is this still the case?

HS: For common solar panels this still is a huge issue. And it is getting even more complex as the units get even bigger. However, our module size is a lot smaller, thus we can cover the whole roof with them and minimize the impact of windows and other obstacles. We can even cover roofs that cannot use conventional PV at all. This doesn't mean that we can only do small areas though. Due to the large energy output, our hero. modules are also a great fit for industrial, agricultural and commercial buildings.

PES: Can you explain a bit about hero.wind. It's a compact module isn't it, so how does it work and what are its advantages?

HS: hero.wind is unique. It is the world's first compact module, which produces electrical and thermal energy through sun and wind. Like hero.flat, the cooling unit absorbs the heat from the solar panel, increasing its efficiency and life span. The collected heat energy can then be used as needed. hero. wind now combines the flat module with a chassis, which, thanks to its aerodynamic design, channels the wind towards the two wind generators. hero.wind generates sustainable energy 24/7, meaning a high energy independence can be achieved, with very low costs per kwh.

PES: So it's small in size, but what kind of cost per kWh is it possible to produce with such a system?

HS: The exact costs per kwh really depend on the building and its surroundings. In the offers that we calculated we achieved costs per kwh at around €0.05 for electricity and



hero.wind: the Swiss world novelty

heat production. If you compare that to current energy costs, this is a massive saving. Take Germany for example, with electricity prices of up to €0.48 per kWh. This doesn't include the heating bill.

PES: What about maintenance issues, how straightforward is this?

HS: The maintenance is as simple as it comes. The basic maintenance is similar to conventional PV panels and thanks to the rail-system, even module replacements are completed within a short period.

PES: Now, how is the ecological situation? There are more components to your modules than to common solar panels.

HS: Our hero. modules are CO₂ neutral in as little as two years, which means that there is up to 28 years of clean energy production. We also use recycled materials for the chassis and avoid any use of copper or other metals in our cooling unit. In fact, we go a step further and use a special biodegradable thermal transfer fluid. So no copper, no glycol

and up to 28 years of renewable energy.

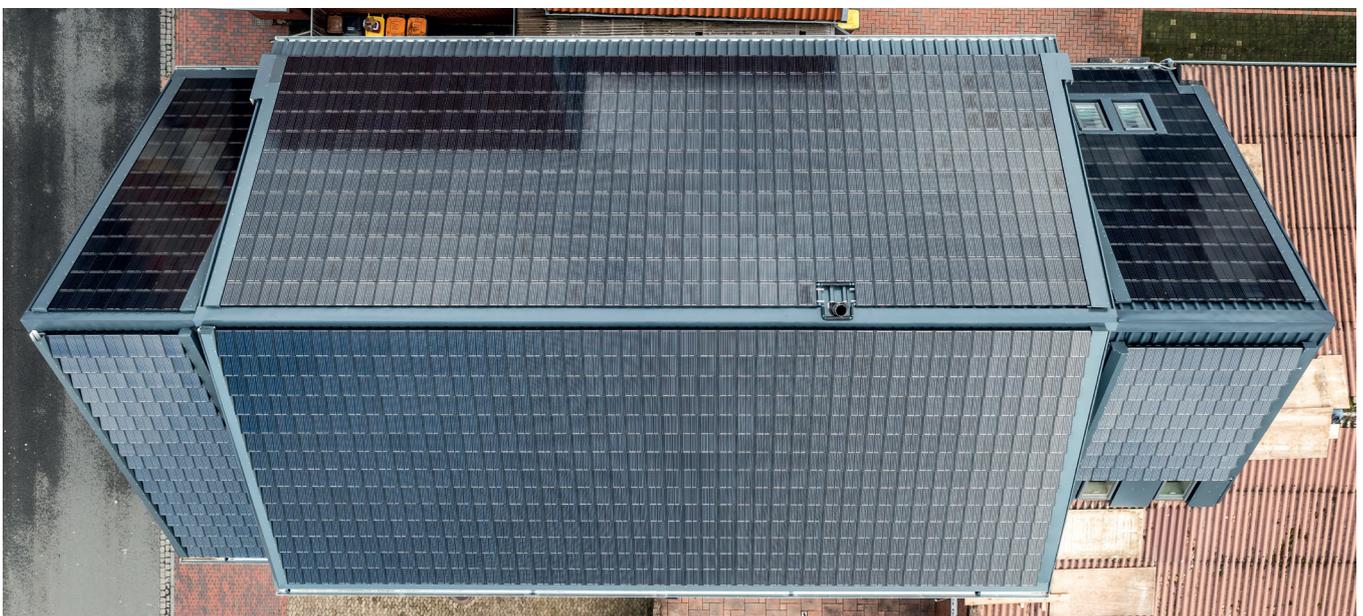
PES: Who can install your modules?

HS: We work with a variety of partners from different trades, including architects, electricians, solar installers, carpenters, HVAC installers, and others. Our system is easy to plan, install and maintain, which creates new business opportunities for a lot of companies involved in the construction business.

PES: It does sound pretty straightforward. Is there special training you offer?

HS: We do offer extensive partner care, starting with our online and offline training. We help our partners to fully understand the hero. product family and the incredible opportunities that come with it, and of course also how to safely install and implement the our modules. Even after the training, we still support our partners wherever they need it. A well trained and happy partner leads to satisfied customers, so it's advantageous for all those involved.

www.logic.swiss



hero.wind and hero.flat roof