

Press release

Bavarian eco-friendly mountain chalet uses a year-round-electricity storage system from HPS

- Hydrogen-based picea energy storage system delivers solar power throughout the year – even in the winter sports paradise of the Bavarian Alps.
- Emission-free power is available to the chalet's discerning guests, who value the chalet's environmental credentials as much as the quality of its accommodation.

Berlin/ Reit im Winkl (Bavaria), 13 January 2022 – The Chalet am Wetterkreuz in the heart of the Bavarian Alps offers holiday guests a high level of comfort and, thanks to picea, a constant supply of carbon-free solar energy even in winter. Married couple Romolo and Christine Liebchen fulfilled a dream with their home in the Chiemgau region of Bavaria and have decided to install a picea hydrogen-based energy storage system from Berlin-based HPS Home Power Solutions GmbH.



Photo: Romolo Liebchen

Comfort and Elegance

The sustainable concept of the chalet adds prestige to the elegance of its design. The warm tones of natural wood, large stone tiles and the muted color accents of the dark steel elements immediately convey a sense of coziness and well-being. The architecture and fittings are of the finest quality and show great attention to detail, as if you had built it for yourself. "That's actually the case," explains Romolo Liebchen. "In about 10 to 12 years, this will be our retirement home." Until then, the 230 sqm luxury home at the foot of the Wetterkreuz mountain near Reit im Winkl is open for discerning holiday guests.



Photo: Max Baudrexl

Sustainability at its best with regional products and efficiency

None of the materials used for the building has come a long way to get here. "We were keen to show off the excellent workmanship of our local building specialists," says Romolo Liebchen. Two of the high-tech elements, however, did come all the way from Berlin: the premium audio system responsible for delivering perfect sounds for the chalet's guests, and picea, the globally unique hydrogen-based energy system from HPS. "Sustainability and efficiency played a significant role in the planning process," said Romolo, who is an automotive engineer by training and has helped improve the performance of racing cars by making them faster and more efficient as head of Audi Sport customer racing. The building was insulated using natural materials and boasts four-pane glazing, although – as befits an idyllic snow-covered mountain chalet in a winter sports paradise – it does have a fireplace. Nevertheless, the picea system will supply all the light, electricity and heat for the high-tech building, which is equipped with all the latest technical features.



Photo: Max Baudrexl

A visit to Berlin convinced them of the value of picea

"It was important for us, particularly in view of the current climate change debate, to install a forward-looking technology that is as carbon-neutral as possible and allows maximum independence," says Romolo. The result was a 17-kilowatt peak solar system mounted on the roof. "The problem is that we get lots of snow in winter covering the solar panels – it can reach as deep as one meter and more up there. It's simply not safe to climb onto the roof to brush the snow off the modules. In order to make use of the surplus solar energy from the summer during the winter months, we needed a seasonal storage facility." So the couple headed off to Berlin at the beginning of summer 2020 to talk to the experts behind the picea all-season storage solution. "My gut instinct was that this was something really solid. What's more, the people at HPS are totally committed to supporting their product," adds Romolo.



Photo: Max Baudrexl



While the picea control hub with its electrolyzer and fuel cell was installed in the basement next to the underground garage, a suitable place was found for the 900-kilowatt-hour (kWh_{el}) energy storage system in the adjacent garden shed. "We used a crane to hoist the 4x4 cylinder modules into place in a single piece before the roof went on," explains the chalet owner. "We have the option of expanding the energy storage to up to 1,500 kWh_{el} and it probably makes sense to do so before too long." This is because he and his wife chose an electrically powered geothermal heat pump as the heating system for the rooms. The installation required three 90-meter holes to be drilled deep into the ground at the property. Romolo estimates that even with the current design, the picea system will be able to meet about 60 to 70 percent of their total energy needs. "That's already a great result."

About picea

picea is the world's first commercially available hydrogen-based electricity storage system for buildings. The surplus energy generated by the photovoltaic system on sunny days is stored as green hydrogen and used in the dark season to supply electricity and heat. picea enables a CO₂-free full supply of energy all year round and reduces heating costs. Per year, a picea system avoids about three tons of CO₂ emissions and this is equivalent to the amount that 130 spruce trees capture annually. picea has received several prestigious awards, most recently the Handelsblatt Energy Award, the smarter E Award and the Berlin-Brandenburg Innovation Award.

About HPS Home Power Solutions GmbH

HPS develops and produces integrated systems for the storage and use of solar energy based on green hydrogen for individual homes, multi-occupancy buildings and commercial properties. The Berlin-based company was founded in 2014 by Zeyad Abul-Ella and Dr. Henrik Colell and stands for reliability, independence, and sustainability in decentralized power supply. For more information, visit: www.homepowersolutions.de.

Contact HPS Home Power Solutions GmbH:

Nils Boenigk (Public Affairs & Public Relations)

Phone: +49 30 235914-704

Email: nbo@homepowersolutions.de

Media Contact:

MC Services AG

Raimund Gabriel

Tel.: +49 89 210 288 0

Email: homepowersolutions@mc-services.eu