

Pressemitteilung

Heating technology for the Antarctic: my-PV's power managers provide hot water and heating from solar power

Neuzeug, Austria, 06.04.2020. The engineers at the Princess Elisabeth research station in Antarctica installed five power controllers from my-PV at the end of March. With the Austrian company's power managers, the research team will be able to use its surplus solar power in future to heat water, rooms and large buffer storage tanks. With the heat in the buffers, the scientists melt snow to produce drinking water.

First CO₂-neutral polar base

The station is operated by the International Polar Foundation based in Brussels. The foundation had set itself the goal of establishing the first completely CO₂-neutral polar base. "Diesel operation is not only environmentally harmful but also expensive. Because of the long transport distances, a liter of diesel can cost up to 12 euros here," says Guus Luppens, the engineer responsible for planning the system.

In order for the polar base to be completely supplied with renewable energy, the off-grid system had to be oversized with nine 6 kW wind turbines and a 60 kWp photovoltaic system. This is the only way it can supply sufficient energy even with little wind and sun. Days with high yields therefore led to an energy surplus. In order to make better use of it and to provide the engineers with a comfortable room heating system, the team equipped the new garage building with infrared heating.

Utilise surpluses one hundred per cent

With the installation of the power controllers AC-THOR and AC-THOR 9s from my-PV, the entire surplus can now be used, because the power controllers measure the frequency increase in the event of a power surplus. Instead of limiting the output of the photovoltaic inverter, the power managers increase the heating power until the system is balanced again. In this way all energy is fully utilised.

About my-PV

The manufacturer my-PV GmbH from Neuzeug, Austria, was founded in 2011 by former managers of a solar inverter manufacturer. Since then, the company has evolved into an important manufacturer of hot water heating systems with photovoltaics. The company started its first research project in the field of storage technology in 2012. In 2013, my-PV invented the DC ELWA for hot water with photovoltaics (ELWA stands for **e**lectric **w**ater heating) and successfully positioned it on the market in 2014.

This was followed in 2015 by the AC ELWA alternating current model, which converts surplus electricity from grid-connected photovoltaic systems into heat. AC ELWA-E has been available since September 2016. In combination with battery systems, it allows for a perfect surplus management of common inverters and energy management systems. With the AC-THOR and the AC-THOR 9s, the company goes one step further and also generates space heating by solar electricity.

A PDF of the press release with images can be found at:
https://pressedownload.pr-krampitz.de/20200406_my-PV_EN.zip

Photo captions:

Bild 1: The Princess Elisabeth research station in the Antarctic

Bild 2: AC-THORs for water heating

Bild 3: AC•THOR for space heating

Editor:

my-PV GmbH
Teichstrasse 43
A-4523 Neuzeug
www.my-pv.com

Media contact:

Krampitz Communications
Sabrina Iven
Dillenburger Straße 85
51105 Köln
+49 (0)221 912 49949
contact@pr-krampitz.de

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