PRESS RELEASE

A resounding success with best ever performance

Fronius and BYD secure first place in PV home storage system inspection

(Wels, 19/03/2020) The results of the "Energy Storage Inspection 2020", a study conducted by HTW Berlin – University of Applied Sciences, were published at the start of March. The hybrid inverter, Fronius Symo GEN24 10.0 Plus, and the BYD Battery Box H11.5, impressed in the two reference cases examined and secured first and second place.

In the study, independent testing authorities tested the overall efficiency of 21 home storage systems and analysed how the PV systems and battery storage systems from the 14 participating manufacturers perform in combination. The study underlines the importance of the energy efficiency of the solar power storage units and notes: "In a less efficient system that was tested, nearly 1,100 kilowatt hours are lost annually due to high conversion losses - 600 kilowatt hours more than the winner from Fronius."

The study calculates overall efficiency using the System Performance Index, or SPI. Two different reference cases were used for the assessment: One reference system combined a 10 kWp PV system with heat pump and electric car and assumes an average annual household consumption of 5,010 kWh/a. The second, more streamlined reference case analysed the SPI for a 5 kWp PV system with the same annual household consumption as in the 10 kWp scenario.

In the 10 kWp category, the combination of the Fronius GEN24 10.0 Plus hybrid inverter and the BYD Battery Box H11.5 performed extremely well and achieved a never before seen SPI value of 94%. It was the only combination in energy efficiency class A to secure first place and left the other systems trailing by a country mile. This duo also achieved excellent results in the 5 kWp class, scoring 92.3% - close behind the winner in second place. These two systems were the only ones to achieve energy efficiency class A in this category.

Maximum conversion efficiency

The Fronius BYD combination demonstrated outstanding values in the energy conversion paths examined. These values illustrate the conversion efficiency of the PV energy produced to loads, to batteries, from the battery to loads or from the grid to the battery. Here, the hybrid inverter GEN24 Plus skilfully plays on one of its strengths, integrated Multi Flow Technology. This not only enables simultaneous energy flows in all directions, but also the AC and DC coupling of the battery storage system. In the test, the Fronius Symo GEN24 Plus inverter achieved the highest efficiency for all energy flows in comparison with the other systems.

Fronius GEN 24 Plus compatible with new BYD Battery-Box Premium

The new GEN24 Plus hybrid inverter will be available from June 2020¹ as both a three-phase Symo GEN24 Plus with power categories from 6 to 10 kW and as a single-phase Primo GEN24 Plus from 3 to 6 kW. It is a uniquely versatile all-in-one solution for comprehensive solar self-sufficiency and ensures maximum independence with integrated grid back-up options. When submitted for the Energy Storage Inspection 2020, it was tested again in combination with the BYD Battery-Box H11.5,

03/2020 1/3

available at the time. As of market availability, the GEN24 Plus is only compatible with the new, improved BYD Battery Box Premium HVS and HVM.

More about the study: www.stromspeicher-inspektion.de

Depending on country-specific availability

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Photographs – overview:

SPI (10 kWp) and efficiency classes of the analyzed systems



Fronius Symo GEN24 10.0 Plus and BYD Battery-Box H11.5 (G1) are the only systems to achieve efficiency class A with a maximum value of 94%, which has never been achieved before.

Source: Energy Storage Inspection 2020, HTW Berlin



The integrated Multi Flow Technology in the GEN24 Plus hybrid inverter enables efficient simultaneous energy flows in all directions and the AC and DC coupling of the battery storage system.

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About Fronius Solar Energy

The Fronius Business Unit (BU) Solar Energy has been developing photovoltaic energy solutions and distributing its products through a global network of expert installation, service and sales partners

03/2020 2/3

since 1992. More than 24 Solar Energy subsidiaries, an export ratio of over 95 percent and a total output of more than 17 Gigawatts from installed inverters are testament to this. Its mission is to achieve 24 hours of sun. Day after day Fronius is hard at work turning this vision of a future in which 100% of the world's energy needs are covered by renewable sources into a reality. With this in mind, Fronius develops energy solutions to generate, store, distribute and consume solar energy economically and intelligently.

About Fronius International GmbH

Fronius International is an Austrian company with headquarters in Pettenbach and other sites in Wels, Thalheim, Steinhaus and Sattledt. Founded by Günter Fronius in 1945, this long-standing company with a rich tradition will be celebrating its 75th anniversary in 2020. What began as a local one-man venture has grown into a global player with more than 4760 employees worldwide working in the areas of welding technology, photovoltaics and battery charging systems. Its export ratio of around 92 percent is achieved with 30 international Fronius subsidiaries and sales partners/representatives in more than 60 countries. Moreover, its innovative products and services and its portfolio of 1253 registered patents make it an innovation leader on the world market.

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03/2020 3/3