

# Pfisterer Delivers First CrossPower System

Since the beginning of February, the CrossPower hybrid power system from Pfisterer has been used in Lithuania as a mobile installation to provide a stable supply of renewable energy. In a representative hand-over ceremony, the first system officially changed owners in Marijampolė. The intelligent power management system balances out the different amounts of electrical power generated by wind turbines, solar cells and diesel generators and coordinates them in the best possible way in relation to current consumption requirements. The fuel savings achieved in the process can reach levels of up to 50 percent.

The first CrossPower system was handed over to Lithuania at the beginning of February as part of the "Smart Energy" energy efficiency program sponsored by the NATO Energy Security Centre of Excellence. The system has a rated output of approximately 150 KW (or up to 2,500 kWh per day), a storage capacity of 100 kWh and comprises a control unit, high-performance batteries, a wind turbine and solar panels as well as two diesel generators. All components can be transported in two 20 feed ISO containers for mobile use. This configuration is thus the first of its kind to offer reliable, renewable power in isolated power grids or micro grids - such as those found in remote areas, earthquake zones and refugee camps. Before the CrossPower system was launched, diesel generators were the only reliable units capable of providing a steady source of power in this application. Delivering fossil fuels to remote areas, however, is very expensive and a risky endeavor.

## Stable grid with state-of-the-art components

A stable grid is realized despite fluctuating power sources by integrating state-of-the-art lithium-ion technology together with photovoltaic systems, wind power stations and diesel generators. Clever management of the interface points between the generators and consumers is also key to ensuring a reliable power supply. The intelligent control system prioritizes renewable energy sources according to their availability, whereas the diesel generators cut in only as required to recharge the batteries and always operate at their optimum output range. This approach can reduce fuel consumption by up to 50 percent.

The first CrossPower system was handed over in the presence of high-ranking government officials and NATO and included deputy defense minister of Lithuania, Antanas Valys, representative of the Canadian Embassy in Lithuania, Jeanette Stovel, and permanent representative of the German Embassy in Lithuania, Michael Morgenstern. Sigitas Mudris, Serving Commander of the Lithuanian Logistics Command, had kind words to say about the collaborative venture with the German industry: "Pfisterer took almost no time at all to devise a highly complex and very impressive system."



Pfisterer's hybrid energy system, CrossPower, allows decentralized independent power from renewable energies for the very first time.

## Link/download

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### **High Potential for Minimizing Fossil Fuel Consumption**

The CrossPower system from Pfisterer can be used as a permanent or mobile installation and offers scaled power outputs ranging from 25 kW to 5,000 kW. The true showpiece, however, is the reliable power supply offered to remote settlements, small islands, mining explorations and hotels, which are often powered by diesel generators as it is simply too expensive to erect a conventional power supply grid. The International Renewable Energy Agency (IRENA) estimates that the total output of all diesel generators currently operated worldwide is approximately 400 gigawatts. Integrating renewable energy sources with the CrossPower system can offer enormous energy-saving potential in this area.

### **Technical specifications of the system**

Output: 150 kW (up to 2,500 kWh/day)  
Battery capacity: 100 kWh  
Wind turbine: 6.5 kW  
Photovoltaic systems: 25 kWp  
Diesel generators: Two 75 kW units

### **The system was engineered and developed by Pfisterer in cooperation with the following partners:**

ads-tec GmbH: Battery storage and energy management system  
Kirsch GmbH: Generators  
Multicon AG & Co. KG: Photovoltaic system  
Smart Power Electronics GmbH & Co. KG: Antaris wind turbine

### ***About PFISTERER***

PFISTERER is a leading independent manufacturer of cable and overhead line accessories for sensitive interfaces in energy networks. The Group is headquartered in Winterbach, near Stuttgart in southern Germany. PFISTERER develops, produces, and sells internationally successful solutions for 110 V to 850 kV voltage levels. With its end-to-end range of products for application in energy networks, consulting, installation, and training, the manufacturer is a valued partner to companies specializing in power supply, plant construction, and electrified rail transport around the world. PFISTERER operates production plants in Europe, South America, and South Africa, as well as sales offices in 18 countries across Europe, Asia, Africa, South America, and the USA. The Group employs around 2,700 employees following the recent acquisition of LAPP Insulators Holding.