

Hybrid Power Generation System wins sustainability award

The Hybrid Power Generation System (H.P.G.S.) of the NATO Energy Security Center of Excellence has just won the Energy Transition Trophies 2016 in Paris. This smart energy system beat more than 130 rival projects in the "Renewable Energy" category. H.P.G.S. is based on Pfisterer's CrossPower technology, which combines conventional and renewable energy sources in one system. It enables a stable, mobile power supply in areas of conflict.

In emergency scenarios, the ability to establish a reliable power supply quickly is crucial. Thanks to the H.P.G.S. – by Pfisterer CrossPower family, stable power grids can now be set up rapidly, even in remote areas, earthquake zones or refugee camps. Lithuania has been testing the system in field conditions since the beginning of the year. NATO will soon be deploying the system into currently planned Exercises. Pfisterer, the leading manufacturer of cable and overhead line accessories recently gave a demonstration of the technology together with the NATO Energy Security Center of Excellence at Eurosatory, the international defense and security exhibition in Paris. This was Pfisterer's first joint trade fair appearance with the NATO energy organization. In addition to military interest, the hybrid power concept immediately attracted the attention of numerous civilian visitors too.

Hybrid Power Generation

The CrossPower system creates isolated power grids – or microgrids – in which wind turbine and photovoltaic systems are combined with conventional diesel generators. This alliance of hybrid power generation and intelligent management ensures a highly secure power supply. Modern lithium-ion batteries store the solar or wind power. The control system automatically 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 reduces fuel consumption by up to 50 percent and makes the system remarkably efficient. A single 150 kW plant can provide a reliable supply to a headquarters or a hospital with 100 people or to a military base with up to 150 soldiers. The entire system is based on touch-safe design and can be operated in the close vicinity of tents and equipment.

Space saving transport

CrossPower also reduces the logistical expenses. Since diesel consumption is much lower, fewer costly fuel transports – inevitably entailing security risks – are necessary to conflict areas. What's more, the system can be housed in two standard ISO 20' containers for transport, taking up very little space. One container suffices for the photovoltaic system and the wind turbine mast while



The H.P.G.S. – by Pfisterer CrossPower family is a hybrid energy system which enables a reliable, decentralized and renewable power supply.

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the second accommodates the management system, switchgear, batteries, and diesel generators.

The CrossPower system is scaled by design and is available with rated power outputs of 25 kW up to 1,000 kW as a stationary unit. Additional modules can be integrated, for instance a hydroelectric power station, a permanent power grid, or a Smartflower solar system.

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 1,100 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.