# EFOY Pro Fuel Cell Most Efficient Catastrophe Management through Reliable Data Acquisition



Power Anywhere and Anylime for Environmental Data Acquisition

- <sup>(b)</sup> Long Autonomy and Reliability
- Casily Installed and Handled
- Constitution Constitution



Case Study Traffic – Environmental Data Acquisition

# **Reliable Data Aqcuisition**







Europe SFC Energy AG Eugen-Saenger-Ring 7 85649 Brunnthal Germany Phone: +49 89 673 592-0 Fax: +49 89 673 592-169 info@efoy.com / www.efoy-pro.com

North America: SFC Energy, Inc. 7632 Standish Place Rockville, MD 20855 USA Phone: 240-328-6688

info@efoy.com /

www.efoy-pro.com

The Application:

An abundance of environmental data is collected every day for surface water level measurements, waste water management, weather stations, avalanche detection systems, seismic detection, as well as measurements of gas and radiation. This data has to be collected reliably in order to assure and improve catastrophe management. Energy demand: between 200 and 2500 Wh/day

Autonomy demand is very high due to location remoteness of the measurement systems.

## The Challenge:

Provide reliable power around the clock, especially during wintertime, with low solar intensity and varying temperatures. Solar alone does not supply reliable energy, especially during weather-critical seasons.

## The Solution:

Combine existing solar panels and batteries with an EFOY Pro fuel cell, integrated into a cabinet.

### The Benefits:

- Long autonomy and reliability EFOY Pro fuel cells offer maintenance-free energy Ċ supply for several months. Up to 50 days of autonomy can be guaranteed when powering a 50 W monitoring device. Operating costs are reduced while reliable data acquisition is guaranteed.
- Easily installed and handled An EFOY Pro fuel cell is compact and lightweight. It can Ċ easily be transported to remote sites and integrated into existing cabinets. Once installed the only service that has to take place is exchanging the fuel cartridges. This can be calculated very closely beforehand; additionally the fuel cell can be remotely controlled, making extra trips to the site unnecessary.
- Emission-free operation The EFOY Pro fuel cell has minimal impact on the environment. Only small amounts of water vapor and CO2 are emitted, allowing its use in nature reserve areas.

## EFOY Pro supplies reliable power, independent of weather conditions and for a long period of time without any user intervention.

### **References:**

## Peter Sporrer, KTS, Austria

Mölltal Glacier – Permafrost measurements

"The system powered by two EFOY Pro fuel cells and two M28 fuel cartridges is running since September 2010 at a height of 2.880 m, withstanding winter storms with up to -35 °C and heavy snow falls."

### Eric Recht, Hydroservices, France

"We haven't been able to provide power reliably using solar yet and the cost of replacing batteries is too high. The EFOY Pro not only gives us the assurance that the device will have power in any weather, but it also lengthens service intervals considerably. We don't have to lay cables either, something that's enormously expensive."

## Peter Nöcker, Pegelbau Schröder, Germany

"For us, the fuel cell is the most innovative way to supply power to our devices. It's also the cleanest. One definite advantage is that the fuel cell communicates with users. It's comforting to know that it will let you know in time if the fuel cartridge is going empty."

Singapore: INNOVERDE PTE LTD 1 Pemimpin Drive, #04-05 One Pemimpin Singapore 576151 Phone: (65) 6694 1814

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