

EFOY Pro solar hybrid system solution



EFOY Pro won't leave you out in the cold



Finding reliable energy for remote applications can be a real challenge. Batteries are heavy and go dead quickly, so they don't provide a long-term solution. Generators are noisy, dirty and require lots of maintenance. The default solution is solar modules. Once installed, they deliver electricity courtesy of the sun. There's one problem though: when the weather's bad, power production drops dramatically and devices may stop operating. That's why solar modules often need to be oversized and equipped with large batteries to make sure that they continue producing power even in bad weather.

100% reliable power around the clock, in any weather

The EFOY Pro/solar hybrid combines the best of both fuel cell and solar technologies.

Good weather – the sun

In a fuel cell/solar hybrid system, the solar module provides all the power when the sun is shining. The EFOY Pro remains in standby mode as long as the sun delivers free energy.

Inclement weather, darkness, winter – a fuel cell

In bad weather, solar cells can't deliver enough power and so, battery voltage drops. Once the charge falls below a certain threshold though, the fuel cell automatically cuts in, recharges the battery, and then returns to standby mode.

Inexpensive

A hybrid system consisting of the EFOY Pro and a solar system offers cost advantages. You no longer have to construct oversize solar panels and you can keep battery size to a minimum.

Economical

An EFOY Pro/solar hybrid system is also economical. When the sun is shining, less fuel is needed. More importantly, though, you no longer have to replace batteries. That means lower personnel and logistical costs.

Easy to integrate

Use plug and play to integrate the EFOY Pro into new or existing solar systems.



EFOY
ENERGY FOR YOU

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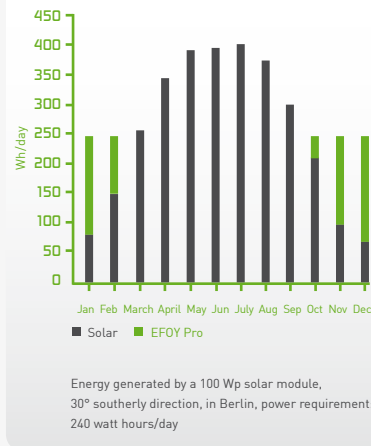
Example

A 24-hour fuel cell/photovoltaic hybrid system for remote operation, continuous rating P_{cont} of 10 watts over 24 hours per day (i.e., 240 watt hours per day)

Scenario 1: fuel cell backup only in winter

Solar module: $10 \times P_{cont}$, i.e., 100 Wp

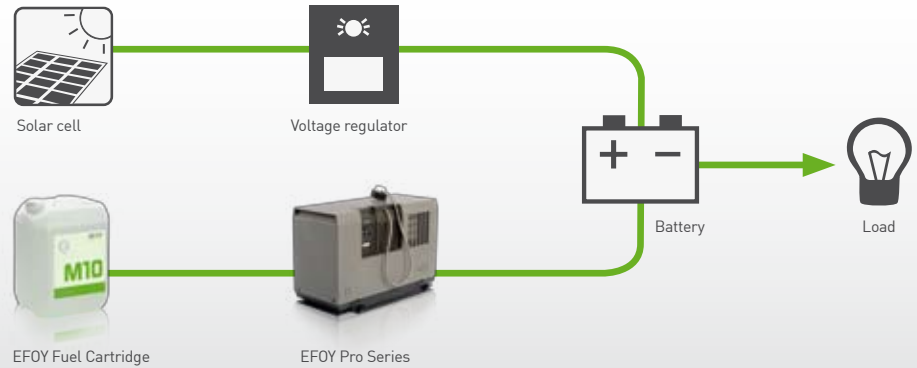
Fuel cell: EFOY Pro 600 (max. 600 watt hours/day)



How an EFOY Pro/solar hybrid system works

The EFOY Pro connects directly to the battery and monitors voltage continually. The fuel cell kicks in automatically only if output from the solar cells drops below a certain threshold, guaranteeing that the battery stays charged even in bad weather. Devices continue to run reliably, around the clock.

Fuel cell + solar



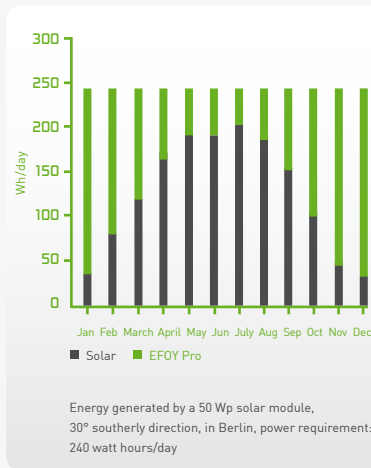
The EFOY Pro closes the energy gap in autumn and winter

The EFOY Pro continues to provide power even when solar cells fail.

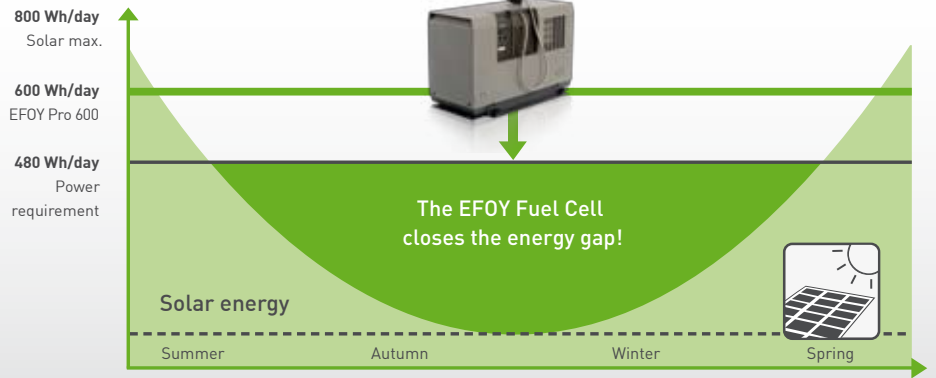
Scenario 2: fuel cell backup year round

Solar module: $5 \times P_{cont}$, i.e., 50 Wp

Fuel cell: EFOY Pro 600 (max. 600 watt hours/day)



Fuel cell + solar = 100% availability



Weatherproof

You can also order the EFOY Pro in the weather- and theft-proof EFOY ProCube. This rugged box protects the fuel cell, the fuel cartridge, and the battery. The ProCube comes with a solar regulator already installed.

