Power anywhere on the autobahn

EFOY Fuel Cells cut costs and improve safety

Where do you get electricity to an illumination?

Road crews often face a familiar problem. Where do they get electricity to power safety signals? There usually isn't an outlet handy when you need to divert traffic. Crews and service providers have to go to a lot of effort to guarantee safety near a construction site. They can lay a power line to the illumination – but that costs lots of money – or they can repeatedly replace dead batteries. That means towing a mobile blinker unit in for recharging and towing a recharged one out to the site every eight hours. The result is a logistical nightmare, lots of driving, and continuous exposure to heavy traffic.

Our solution – a fuel cell to provide trouble-free power

Everyone wants to diminish CO_2, cut costs and increase efficiency. Well, the future has already arrived for the autobahn depots in North Munich and Augsburg. They've been using EFOY Fuel Cells since 2006 to provide reliable, low-maintenance electricity to power illuminated traffic signals.

Fuel cell + battery

EFOY Fuel Cartridge | EFOY Pro Series | Battery | Load

How it works

The EFOY Pro connects to the battery that powers the lights. If voltage dips below a certain level, the EFOY Pro switches on, recharging the battery fully automatically. Once the battery is completely recharged, the EFOY Pro automatically reverts to standby mode. The process involves no moving parts and no combustion whatsoever, emitting only water vapor and carbon dioxide in the amount that can be compared to a child's breath. Fuel cells can help diminish particle emissions and reduce greenhouse gases.

Customer example
Autobahn authoroties

The challenge
To power warning signs at roadwork sites where no external power source is available.
To provide an alternative to costly, complicated sources of power such as batteries, generators or solar devices

The solution
The EFOY Pro

The benefits
A 15 to 20-fold reduction in signal maintenance. Less need to replace batteries on the autobahn/Reduced exposure to traffic

Greatly simplified logistics

Costs dropped 12 – 90% depending on the application

EFOY ENERGY FOR YOU

Power anywhere on the autobahn

"We saw that there was a solution. It was affordable so we tried it and it worked beautifully. It just runs and runs and runs like an old VW Beetle."

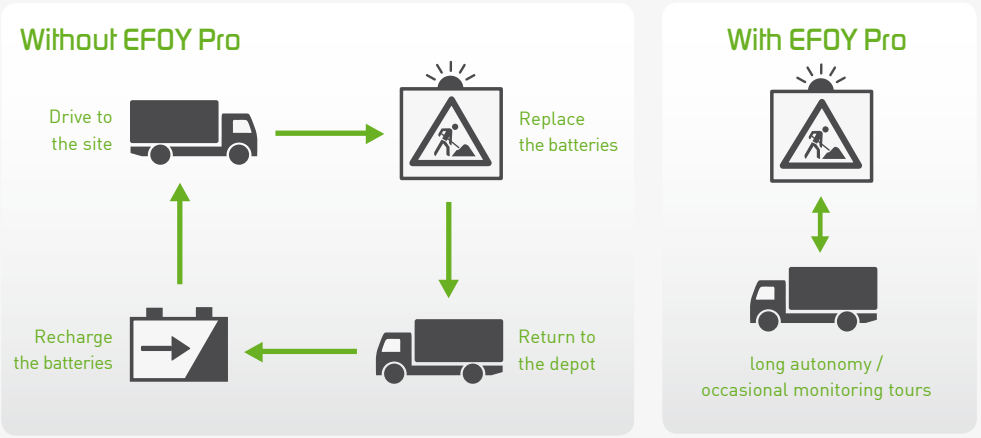
Peter Scheidler
Autobahn depot – North Munich

"What I like most about this solution is the fact that the exchange of starter batteries in the middle lane of our three-lane motorway is avoided. Therefore the risks involved in completing this task can be reduced significantly, resulting in an important logistical advantage."

Willmy Robert
Group leader autobahn depot – South Bavaria

The benefits – efficiency, lower costs, heightened safety

The benefits of using fuel cells at construction sites become readily apparent when you look at the big picture.



Replacing dead batteries and repeatedly refueling generators costs time and money in terms of personnel and vehicles. Moreover, it endangers personnel because they have to venture into traffic to replace heavy batteries or signal trailers.

The greater the distance from depot to work site and the longer construction lasts, the better the benefits of switching to the EFOY Pro*:

	Warning blinkers	Speed limit sign	Sequential blinkers	Signal trailers
With battery	2 days	1 day	1 day	0.33 days
With EFOY	31 days	18 days	27 days	7 days
Labor time saved per month for exchanging batteries	5 hours	9 hours	7 hours	108 hours
Savings per month	205 €	113 €	76 €	8,890 €
Savings in % per month	50 %	14 %	12 %	89 %

- Reduce maintenance 16 to 20-fold
- Schedule work more efficiently
- Eliminate unnecessary work replacing batteries or refueling generators
- Cut costs by anywhere from 12% to 90%, depending on the scenario
- Improve crew safety

* The above scenarios are based on standard figures for distances traveled and hours worked provided by autobahn depots in Munich and Augsburg.

Other applications

- Monitor construction sites (camera)
- Warn about icy conditions
- Monitor traffic (cameras, induction loops)

Additional information
www.efoy.com

Your Partner

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