

Zero-emission fuel cell back-up power now available for RVs

May 25 2011, By Jim Motavalli

Fuel-cell cars have been a tomorrow technology as long as I've been reporting on them, but it looks like 2015 will be the year they finally go commercial, with hundreds of thousands (you read that right) planned for production as early as 2015.

Right now, it remains theoretical. The cars, including the Toyota [Fuel Cell Hybrid Vehicle](#) advanced (FCHV-adv), fuel up at Proton OnSite in Connecticut, are in test fleets, and the numbers are very small. And what is loftily referred to as the hydrogen infrastructure - the necessary network of filling stations - is lacking. There are maybe 70 of them in the U.S. (nobody seems to have an exact count), and only about 25 of those are open to the public.

But that's all set to change, and even now fuel cells have made inroads - just not in cars yet. I love the fact that there are hundreds of fuel-cell forklifts at companies like Wal-Mart and Bridgestone-Firestone, and 1,000 or more in the pipeline. Why? It's cost-effective, there's no need to store heavy battery packs, and because the lifts are [zero emission](#), there's no problem operating them indoors.

And another major use is auxiliary power, providing electricity when it usually isn't available. And that's what led me to Smart Fuel Cells' EFOY. Who'd a thunk it? This German company has built a successful business providing \$4,000 to \$6,000 portable fuel cell back-up power for huge RVs. As you know, what's the point of going to a campsite if you can't plug in what Albert Brooks, an RV owner in "Lost in America,"

refers to as a microwave that browns? And you won't want to miss the repeat of "Glee," either. Right now, standard operating procedure means running the RV's big engine, which is a colossal waste of fuel.

Some RV campsites have hookups for electricity, but many don't, and gasoline generators are noisy and smelly. The noisy part means that some sites make you turn them off at night, which isn't a liability of the fuel-cell alternative. The EFOY made by SFC uses a \$65 plug-in methanol cartridge that you get off the shelf in 1,500 convenience stores in Europe (where it's partnered with 50 RV companies), and 50 in Canada.

The U.S. is the next market at the end of 2011, and you know we have a lot of RVs. The price seems high, but RVs are really expensive, and back-up power will just be one more option that Good Sam members will check off.

I've been attending a hydrogen conference in Vancouver, Canada, and was enthralled by a presentation from SFC's CEO, Peter Podesser. He said the company has sold 20,000 of the units, and the units have already logged a collective 8 million operating hours. "We did a study in 2006 to try to find out which markets would pay for auxiliary power units, and RVs stood out," he said. "If people are off-grid for three days, they will want to watch TV and enjoy a cool beer in the evening."

The EFOY is also standard equipment as back-up power for federal troops in Germany, because it reduces on-the-move weight compared to diesel generators. Plus, remember that it doesn't make any noise? That's great for "silent watch" military missions.

On a larger scale, stationary fuel cells are providing back-up power for hospitals, military bases, banks, and telecoms (especially to keep cell towers online). Companies like long-term player Ballard Power Systems, Linde, UTC Power and Air Liquide (which has built 50 big hydrogen

generators) have made this a big business. And nearly all of them are eyeing the pending deployment of those fuel-cell cars - from Daimler, Honda, Hyundai and Toyota - as the next big market to get into. When the cars are ready, they hope to be, too.

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