New Fuel Cell To Keep Data Centers Running

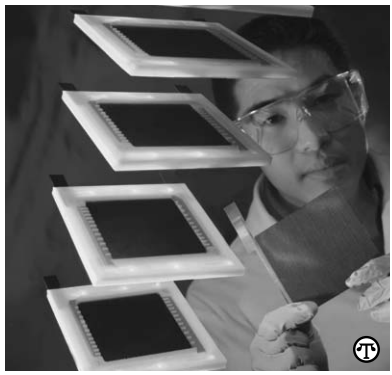
(NAPSA)—Here's news that may offer a glimpse of the future: Scientists are working on a new type of fuel cell that uses less expensive materials, can serve as its own battery system and has good "cold start" capabilities.

The new design—called the Ovonic metal hydride fuel cell—is said to offer several advantages over existing PEM (Proton Exchange Membrane) fuel cells, including instant start-up, cold-temperature operation down to minus 20 degrees Celsius, power generation in the absence of hydrogen fuel for several minutes, and the ability to store electrical energy like a conventional battery.

According to the developer, Ovonic Fuel Cell Company LLC, a subsidiary of Energy Conversion Devices, Inc. (ECD), a major benefit of the Ovonic metal hydride fuel cell is cost. That's because the design requires no noble metals, such as platinum. "By atomic engineering of multiple components into a multiphase structure, we are able to develop materials without noble metals that have more functionality than the traditional catalysts traditionally used in fuel cells," explains Stanford Ovshinsky, president and founder of ECD.

"In fact, the most costly item in the entire metal hydride fuel cell is a nickel screen," says Dennis Corrigan, president and COO of the Ovonic Fuel Cell Company. "We are really talking about a different order of magnitude on cost."

The low-cost potential and unique ability to store regenerative braking energy directly in the fuel cell provide exciting new possibilities for automotive and propulsion applications for the future transportation industry. However, the company is currently focused on here and now applications.



A new kind of fuel cell may find its first application providing emergency power to data centers.

"Right now we're actually focused on a different market than automotive," explains Corrigan. "And what we've found is that we have very good technology for UPS (uninterruptible power supplies)." He explained there are key data centers that have to be capable of running for many hours, or perhaps even a few days, uninterrupted on emergency power.

Using standard batteries to fuel that capability would, in most cases, be impractical and require hundreds of batteries. However, a metal hydride fuel cell would offer an attractive alternative.

"We've been talking to UPS emergency power manufacturers, and they're very interested in fuel cell solutions," says Corrigan. "They like the lower-cost design and they like the fact that this is instant start even without a battery, because that gives them a sort of fail-safe feature."

The UPS market is said to be about $6 billion now and experts say the 10-15-kilowatt extended-power niche is likely to be one of the fastest-growing areas over the next several years.

To learn more, visit the Web site at www.ovonicfuelcell.com.