

Trulite fills middle ground with fuel cell technology

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By Ford Gunter

As competitors in a fledgling industry, hydrogen fuel cell manufacturers are concentrating their business at the ends of the spectrum, leaving the middle range wide open. At least that's what Trulite Inc. President and CEO Jonathan Godshall is counting on.

On one end, companies such as Plug Power Inc. and Ballard Power System Inc. are manufacturing large fuel cells for use in the automotive industry.

"On the other end of the spectrum, companies are working on very small fuel cells, for laptops, or soldiers in the field," Godshall says. "We are in between those two."

On July 30, Houston-based Trulite will officially announce KH4, its portable fuel cell that can generate up to 200 watts of electricity at peak capacity and runs on a safe, storable powder with embedded hydrogen.

At less than 25 pounds and an estimated retail price of just over \$2,000, Godshall says the cell is ideal for middle-of-the-road users such as builders and outdoorsmen who need to power more than just a small battery, but not as much as a full-size car.

"Our goal is to put it into the consumers' hands," Godshall says. "For outdoor enthusiasts who enjoy camping, hunting, boating -- places where you need auxiliary power. And the construction market. Power tools are now recharged with gasoline generators, which are noisy, they pollute and you have to keep refilling them."

Instead, KH4's two 400-watt-hour fuel cartridges can provide uninterrupted electricity for up to eight hours when operating at 60 percent capacity.

Godshall also sees opportunities in security and monitoring, small business data backup, remote relay and weather stations, disaster preparedness kits and household uses such as backup refrigeration in case of a blackout.

An analyst who follows alternative fuels agrees that the middle market is emerging for fuel cells, but, he says, it comes down to how the cells are priced compared to competitors.

While the KH4 is more expensive than gas generators, it costs considerably less than industry leader Jadoo Power Systems Inc.'s \$3,499 100-watt unit. Alesha Englund, who works in strategic sales for Folsom, Calif.-based Jadoo, says the company has another 250- to 300-watt unit hitting stores in October.

Trulite, meanwhile, has been testing prototypes for two months, with beta units expected to roll out in October.

"We'll make changes, then it will take some time to order the tooling and manufacturing," says Godshall, who estimates production to start in the second quarter of next year.

Godshall, the former president and CEO of Katy-based Igloo Products Corp., says Trulite hopes to have the units manufactured in the Houston area.

He says the product will be sold through several channels of distribution, including retail and commercial outlets -- which may include online retailers -- and directly to businesses. Trulite also plans to sell KH₄ to government agencies.

Power-charged

Founded with about four employees as Trulite Technology LLC in January 2002, the company was incorporated in July 2004 when the founders partnered with Contango Capital Management, a Houston-based investment firm.

Trulite went public in February and has been thinly traded on the Over the Counter Bulletin Board ever since.

All but five of the company's 25 employees now work out of a technical facility outside of Salt Lake City.

KH₄'s hydrogen is released from canisters of sodium borohydride, a powdered combination of sodium, borax and hydrogen, which is less volatile than other hydrogen fuel sources.

"No one has that type of system -- the dry sodium borohydride system," Godshall says of the \$25 canister.

Water triggers the release, and after the hydrogen passes through a series of membranes called a stack, it is split into protons and electrons, the latter creating the electric current.