

# San Diego Business Journal

## PowerGenix Putting a Charge in \$4 Billion Alkaline Battery Market

By NED RANDOLPH - 9/8/2008  
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PowerGenix says its new nickel-zinc rechargeable batteries will revolutionize the \$4 billion alkaline rechargeable market.

Flush with venture capital, the San Diego-based manufacturer has signed \$75 million in supply agreements with makers of lawn and garden equipment as well as power tools and recreational vehicles. PowerGenix said Sept. 2 that it has made a deal to supply batteries for use in Houston-based Veloteq's scooters and electric bicycles made in China.



PowerGenix Chief Executive Officer Dan Squiller says he has signed \$75 million in supply agreements for his nickel-zinc rechargeable batteries.

Financial terms of the three-year deal were not disclosed. PowerGenix Chief Executive Officer Dan Squiller says shipments to Veloteq will begin by the end of the year.

The battery showed great potential this summer when PowerGenix equipped a Toyota Prius with a D-cell battery pack at an automotive conference in Tampa, Fla., and watched it deliver 30 percent more power than Prius' current power supply, says Squiller.

The nickel-zinc rechargeable "is a much more powerful and longer lasting battery than what's available now," Squiller said. "We believe we have a shot to completely replace a class of batteries."

PowerGenix makes AA cells, sub-C, and the larger D-cell battery.

Nickel-zinc, which is smaller and less toxic than other nickel-based batteries such as nickel-cadmium and nickel-metal hydride, has been difficult to make rechargeable, says Squiller.

### A Breakthrough

"Thomas Edison got the first patent on nickel-zinc in 1901, but no one has been able to make a rechargeable version that lasts very long," said Squiller. "We've cracked the nut, so to speak, that's what makes us unique."

The zinc, which is soluble and less toxic, is difficult to stabilize, says Squiller.

"It's finicky. Zinc is a soluble element. Inventions have had to stabilize that zinc and make the zinc behave, which is much more difficult to do in a rechargeable battery," Squiller said.

“The essence is that all chemical processes in the rechargeable battery are reversible. In non-rechargeables, you do not have to worry about how to figure out how to make the battery recombine itself.”

In three years, PowerGenix has grown from 10 employees to 60 at its Scripps Ranch headquarters. It also has 40 workers at a product development facility in China.

Since 2003, when Squiller joined the company, PowerGenix has raised more than \$31 million in venture capital in three rounds. San Francisco Bay Area firms Technology Partners, Granite Ventures LLC and Advent International (now Element Partners) co-led the first round. Florida's OnPoint Technologies led the second, and Angeleno Group LLC in Los Angeles led the third.

Add to that an undisclosed amount in a fourth funding round in August, and Squiller says PowerGenix, founded in 2000, should be properly capitalized to reach an initial public offering by late 2009.

### **Lofty Goals**

“We think this can be a \$100 million company by 2010, and we have every intention of taking it public,” he said. “We're growing it any way we can, and I don't really see any huge impediments in that.”

In the agreement with Veloteq, PowerGenix's NiZn batteries will replace heavier lead acid batteries, says Veloteq President Jim Woods.

“To us it was a magic bullet. That's what will make it succeed,” said Woods. The company partnered with PowerGenix a year and a half ago to develop a product with Veloteq's specific requirements.

Veloteq scooters and electric power-assist bikes have a 40-mile range per charge at a cost of 25 cents. They cost \$1,600 to \$2,300.

The NiZn batteries will reduce charge times from six to eight hours to one to two hours, lowering the cost to 3 cents per charge and doubling the battery's life span.

The battery will also be used in Veloteq's latest prototype, which will have a top speed of 35 mph and is expected to be unveiled at the Interbike show in Las Vegas this month.

Higher fuel prices and environmental awareness have boosted the demand for scooters in the United States. According to the California Air Resources Board, gas-powered motorcycles and scooters generate higher emissions than ordinary autos and sport utility vehicles, Woods says.

“We have no emissions of any kind,” he said. “The only carbon footprint is the actual generation of electricity by the utility power plant.”

Veloteq should sell about 15,000 scooters and e-bikes during the next year in western Canada and the United States, Woods says.