

Nickel zinc recycable battery technology to hit Europe

PowerGenix claims its cheaper alternatives to lithium ion cells are safe to "puncture with nails, run over, or put in a fire"

Danny Bradbury, BusinessGreen, 27 Aug 2008



A Californian company will start selling RoHS-compliant batteries in Europe, just as new battery legislation places more environmental constraints on battery vendors.

Dan Squiller, chief executive of nickel zinc battery vendor [PowerGenix](#), claims its cells are the most recyclable available. "We have no rare earth elements, no cadmium or other toxics," he explained. "In our battery, you have zinc, nickel and copper."

Squiller said that the batteries offer the same power density and longevity as lithium ion batteries, offer about 75 per cent of the performance and cost roughly 40 to 50 per cent less.

"In lithium ion there are a lot of things that have to be done in mechanical and electrical design to ensure its safety," he said, citing the danger of thermal runaway with lithium chemistry. However, nickel zinc does not need the same protection. "You can puncture our cells with nails, run them over, or put them in a fire," he claimed.

The company is targeting power tools, rechargeable cells for consumer devices such as mobile phones and MP3 players, and the hybrid electric vehicle market with its products, along with lawn and garden tools. It also sees opportunities in the higher-end electric scooter market, where its batteries could be used instead of lithium ion chemistry as a replacement for heavier lead acid batteries.

[Batteries are exempt](#) from the EU's [Restriction of Hazardous Substances \(RoHS\) Directive](#). However, the revised [EU Battery Directive](#), which came into force in 2006 and which must be [adopted by the end of next month](#), stipulates maximum levels of cadmium and mercury - although cadmium is exempt in power tools.