

Next-generation light bulb shines at CES

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A block of ice with Consumer Electronics Show logo is seen ahead of the opening of the event on January 8, in Las Vegas, Nevada. A California startup out to change the world shined at the CES on Thursday with a light bulb, new-generation LED, blending beauty and efficiency with love for the Earth.

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Switch Lighting executives Tracy Bilbrough and Brett Sharenow glowed as they showed off new-generation LED (light-emitting diode) bulbs that they believe will transform the more than \$30-billion global market.

"It is exciting to be the little David taking on the Goliath's of the world," Switch chief Bilbrough told AFP.

"You pick this because it doesn't have mercury; you can dim it; it loves cold weather; there is no ultra-violet so they don't draw any bugs outdoors, and it fits in any fixture an incandescent bulb goes in."

Switch bulbs being are being tested in two US hotels and will begin shipping later this month as a smart option to incandescent or CFL models.

[Incandescent bulbs](#) are power-sucking classics being phased out in countries around the world, replaced by energy-efficient CFL versions containing [toxic mercury](#) that make them hazardous to toss in the rubbish.

"LEDs are really the next thing in lighting," said Switch chief strategy officer Sharenow.

The Silicon Valley company's bulb is touted as Earth-friendly from "cradle to cradle" and lasts about seven times longer than CFLs while providing the kind of light people like from incandescent.

Switch bulbs have an artistic look akin to a snow glove perched on a silver pedestal. They can also survive a three-foot drop to a hardwood floor.

A ring of metal prongs, each with a computer chip on it to emit light, is immersed in liquid that fills each bulb. The liquid cools the chips while acting as a lens to magnify light.

"It is food-grade; actually used in making beer, pasta and women's cosmetics," Sharenow said of the liquid, the ingredients of which were

secret.

"We actually get more light out of the LEDs with liquid in the glass dome than if there was air in there."

Switch bulbs use 80 percent less electricity than incandescent bulbs and last for about 25,000 hours no matter often you switch them on or off, he added.

The life spans of CFL bulbs shrinks as they are flicked on or off and they buzz or burn out if dimmed.

Switch bulbs, which are being launched in 65- and 75-watt models, are priced at \$35 each but the price was expected to drop under \$20 by the end of the year.

Even at a price of \$35, businesses recover the cost in six months while homeowners hit that mark in two years, according to Sharenow.

LED bulb efficiency is on par with CFL, which cost about three dollars each versus 50 cents for incandescent. Bilbrough expected LED bulbs to quickly get more efficient than CFL.

Switch is first targeting businesses that see cost-savings in energy-efficient bulbs that last them more than a decade. Bilbrough estimated that Switch bulbs would last about 25 years or longer in home use.

"If you put that in your baby's room when they come home from the hospital, they will still be studying under it when they are in college," Bilbrough said with a nod toward one of the bulbs.

"These things will last longer than your phone, iPad, car or sofa."

When people are done with Switch bulbs, the company wants them back so they can recycle or reuse the parts giving them new lives in a practice referred to in the industry as "cradle to cradle."

"We want to reuse every part we can so nothing goes back to the biosphere of the Earth," Sharenow said.

Switch in coming months will release a 100-watt bulb and models tailored for Europe.

"Everyone is looking for ways to avoid building power plants," Bilbrough said, noting that about 20 percent of the world's electric power goes to lighting.

"The one thing with no negative environmental impact is to use less," he continued.

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