

# Knoxville News-Sentinel

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## **Hybrid solar lighting system makes bright debut**

Author: BOB FOWLER, [fowlerb@knews.com](mailto:fowlerb@knews.com)

OAK RIDGE -- Founders of a startup, high-tech lighting firm that has made the leap from lab to market say their future looks bright. Sunlight Direct is marketing a hybrid solar lighting system that officials say trims energy costs, boosts productivity and spurs shopping. Developed at Oak Ridge National Laboratory, the system was formally unveiled Tuesday as a new exhibit at the American Museum of Science and Energy. "I'm thrilled," Sunlight Direct President John Morris said of the ramp-up of the new company. "I think it's going to be a great economic opportunity for this region." In the HSL 3000 system, a solar collector akin to a satellite dish concentrates sunlight into optical fibers that screen out heat and ultraviolet rays. The optical fibers are strung into buildings and meshed with conventional lights. A control system allows the lighting systems to work in tandem, with regular lighting taking over when it's cloudy or nighttime. Such a hybrid system is "more likely to be accepted," TVA Chairman Bill Baxter said, because consumers aren't being asked to make big changes. "The potential is there, and now the hard work is beginning," Baxter said. "It comes down to, can you make it affordable to somebody as hard-nosed as Wal-Mart?" Morris, an entrepreneur, and his business partner, Oak Ridge National Laboratory researcher Duncan Earl, say yes. With the lab's co-sponsorship, one of the systems is being tried at a Wal-Mart in McKinney, Texas, while another has been sold to Opry Mills Mall in Nashville. The third-generation lighting technology system costs \$24,000 to illuminate 1,000 square feet, or the equivalent of eight fluorescent light fixtures. But within two years, design changes and a pickup in production should drop the price per unit down to \$8,000, Morris said. Energy savings from reduced lighting and air conditioning costs will amount to about \$1,000 a year, Earl said. But the real payback, Moore said, is better lighting. People prefer sunlight, he said. Studies show that students and workers become more productive and shoppers spend more under natural lighting. Sunlight Direct is housed in an incubator building operated by Technology 2020, a nonprofit organization that helps startup firms. The company has joined forces with another relatively new Oak Ridge company, Protomet Corp., to make the units. Morris has a proven track record with startups. He helped found NetLearning in downtown Knoxville. That company, which sells online training systems to hospitals, was sold last year for an undisclosed sum. "I was looking for an opportunity that had a pretty big upside," Morris said of his decision to take the helm of Sunlight Direct.

Bob Fowler, News Sentinel Anderson County editor, may be reached at 865-481-3625.