

SSL Postings



Although you do not often hear about growth in domestic manufacturing here in the United States, the solid-state lighting industry is steadily growing and establishing a manufacturing presence here at home. Solid-state lighting was not only born of U.S. ingenuity and R&D, but is riding the crest of a worldwide trend toward greater energy efficiency. This offers a golden opportunity for U.S. manufacturing to take a significant role in SSL. From time to time, these Postings will focus on SSL companies manufacturing here in the U.S., a series we call "SSL in America." This is not intended to promote any of the companies, but rather to promote energy-efficient solid-state lighting. The philosophy and actions of the companies you'll read about here align with the recommendations set forth in the [U.S. Department of Energy \(DOE\) white paper](#) "Keeping Manufacturing in the United States," which grew out of DOE's 2010 SSL Manufacturing R&D Workshop.

GE Lighting Solutions is the LED subsidiary of GE Lighting, both operating out of the same headquarters in Cleveland. GE Lighting Solutions designs and manufactures LED outdoor and indoor lighting products and has manufacturing plants in Hendersonville, NC, and overseas. The Hendersonville plant serves the global market for outdoor LED lighting systems for roadways, parking lots, and other area lighting applications. Hendersonville also manufactures outdoor and industrial lighting products that use traditional technologies. Most of the company's LED outdoor lighting products are manufactured in Hendersonville, and Director of Operations Bob Petersen expects those products to account for an

increasing percentage of the plant's output as the adoption rate continues to grow.

The company's involvement with solid-state lighting began in 1999 with the manufacture of LED specialty lighting – primarily traffic signals. In 2008 GE started marketing LED outdoor lighting products, which now cover a wide range of outdoor applications.

There are a number of reasons why GE Lighting Solutions manufactures SSL products in the U.S. according to Peterson. One has to do with the company's preference for manufacturing products where they're intended to be sold; another is its practice of making baseline models and customizing them to the needs of the installation. This allows GE Lighting Solutions to reduce inventory costs by manufacturing products as orders are received and still deliver them to customers within weeks instead of months. This helps the company control obsolescence – very important with a still-developing technology like solid-state lighting in which products are rapidly superseded by newer versions. Manufacturing overseas for the sizeable U.S. market would mean a long supply chain and a large inventory, which could result in a significant amount of unsellable obsolete products over time.

Peterson notes that manufacturing domestically for the U.S. market shrinks transportation times and costs. In addition, he cites steadily rising labor rates in Asia and points out that there's not a lot of labor required to make his company's outdoor SSL products – both factors helping to negate the main advantage of moving manufacturing offshore. He also states that intellectual property is easier to protect when manufacturing domestically. He emphasizes that when considering whether to do SSL manufacturing in the U.S., it's important to look at the total cost of manufacturing in the U.S. rather than at the cost of isolated aspects of the manufacturing process.

To illustrate the value of government stimulus in creating a market,

Peterson uses the example of his company's Evolve™ LED Cobrahead street light, which won Best in Class in the 2010 Next Generation Luminaire competition. When he and his colleagues learned that the American Recovery and Reinvestment Act of 2009 (ARRA) would make stimulus money available to municipalities to help defray the cost of LED street lighting products, they realized the shortened payback period could make these products viable solutions. So they developed the Cobrahead, which the ARRA funding made affordable to cities for a period long enough for GE Lighting Solutions to lower the cost through manufacturing and engineering improvements. In other words, the temporary availability of government stimulus money helped nurture a product "over the hump" so it was commercially viable without the stimulus money.

GE Lighting Solutions is among a number of companies that are working to create and strengthen a solid-state lighting manufacturing base here in the U.S. This will not only help bring significant energy savings through more efficient lighting products but will benefit our economy by adding jobs at multiple levels of the supply chain.

As always, if you have questions or comments, you can reach us at postings@lightingfacts.com.
