SSL Postings

Jobs and the economy are on everyone's minds these days, and many in the solid-state lighting industry are working hard to address those important issues. With SSL on the cusp of really taking off, we have a window of opportunity to establish a U.S. role in solid-state lighting and maintain our leadership in intellectual property and innovation.

But doing that is a matter of degrees rather than an "all or nothing" proposition because, thanks to improved transportation and communication as well as an overall loosening of trade restrictions, the world has shrunk into one big, global village. It's become quite common for products of all types to be of decidedly mixed provenance – that is, to be assembled in one place but contain components that come from multiple other locations. In fact, it would be naïve nowadays to assume that a product from any particular country had no components that were made elsewhere, because so many of them do.

Solid-state lighting is no exception. Plenty of SSL products are made here in the U.S., as our "SSL in America" series of occasional *Postings* highlights. However, that doesn't necessarily mean they don't have components that come from overseas. The good news is that the widespread assumption that solid-state lighting – like so many other products these days – has to be manufactured elsewhere doesn't map to the reality of the situation, which is considerably more complex.

There are many factors that come into play when a company

decides where to manufacture – not just lower labor costs, but also government-provided incentives as well as proximity to the supply chain, to the customer base, to growing markets, and to the right skill sets. There are also concerns about the cost and safety of capital and protection of intellectual property. All of these things help determine where to set up shop.

One of the goals of DOE's SSL manufacturing initiative is to foster a significant manufacturing role for solid-state lighting in the U.S. How to do that is a hot topic of conversation throughout the industry, and lighting leaders from all segments of the supply chain join DOE at our annual SSL Manufacturing R&D Workshops for a unique, open-ended dialog on the subject.

The companies represented at these workshops range from the largest manufacturers to the smallest, and also include those who support the manufacturing process, such as the makers of manufacturing and testing equipment. Some emphasize U.S.-based leading-edge manufacturers of LED chips and the associated intellectual property as a strong base for value-added manufacturing. Others have said they envision a significant solid-state lighting manufacturing base in North America, with luminaires being finished here using components and subsystems made or at least partly assembled in other parts of the world. Many of them also see U.S. manufacturing as being especially viable with SSL luminaires, whose labor content is quite small compared with the overall cost. Back in 2010, Tom Morrow of SEMI, the global association for the microelectronics supply chain, noted that although the vast majority of LED fabrication facilities are in Asia, half of the equipment and materials that support them are made in the U.S. – which he and many others feel is how this country can play a key role in SSL manufacturing.

Since globalization of the marketplace has become a modern-day reality for so many kinds of products, rather than viewing the glass as half-empty and bewailing that portion of SSL manufacturing that

has already migrated to foreign shores, DOE is working hard to support SSL manufacturing efficiency and cost-cutting, in order to improve our chances of keeping a significant portion of solid-state lighting production domestic. We're also working with lighting leaders of all stripes to determine just what role the U.S. can play in SSL manufacturing – because there most definitely is room for a U.S. role – and to maximize that role.

For more information on this important topic, see the three DOE white papers that have resulted from our manufacturing workshops: "Keeping Manufacturing in the United States," "U.S. Manufacturing Strength Growing: Cautious Optimism," and "DOE Supporting U.S. Manufacturing Growth."

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