Postings: from the desk of Jim Brodrick

Happy New Year to all of you! This time of year is always filled with nostalgia as well as anticipation, so before taking a look at what 2011 has in store – which I'll get to in next week's *Posting* – I'd like to take this opportunity to review some of the highlights from 2010.

Last year was an eventful one for solid-state lighting, as it continued its rapid evolution in both the lab and the marketplace. That evolution is reflected in the results of DOE's CALiPER testing program, which since its launch in 2006 has tested more than 400 SSL products in 19 categories. CALiPER Round 10 was completed in May 2010, and Round 11 in October. Although we're still finding a wide range of performance among LED products tested, these last two rounds have shown a continuation of the steady increase in their average efficacy – from 21 lm/W in 2007, to 57 lm/W for Round 11.

Last year was also an eventful one for the first L Prize entry, as it went through extensive testing. After completing short-term photometric testing in the spring of 2010, it began long-term lumen maintenance testing, which we expect to complete this spring, along with stress testing. Over the summer, more than 1,400 product samples were installed and evaluated by L Prize Partners at over 40 sites across North America. A Technical Review Committee is busy reviewing a wide range of data on the entry, including the results of the field assessment, as well as the commercial manufacturing plan submitted by the manufacturer, Philips Electronics. The evaluation will be finalized over the next few months.

Overall, we've been seeing an improvement in the quality of LED replacement products on the market, which may reflect the increasing importance of this market segment, given the new general service lamp efficiency standards mandated by the Energy Independence and Security Act of 2007.

DOE's Lighting Facts program has gained considerable traction over the past year as a tool to promote accuracy in LED product information and facilitate meaningful product comparison. At the start of 2010, more than 40 SSL manufacturers had signed up and had their products tested to LM-79, and more than 250 of those products had been approved to carry the Lighting Facts label – while more than 55 retailers and distributors, and more than 50 utilities and lighting design firms, had pledged to look for and use products carrying that label. Those numbers have mushroomed on all fronts since then, to the point where now, just two years after the program was launched, more than 190 manufacturers have signed up and had their products tested, and over 1,870 products are registered – with more than 155 retailers and distributors, and more than 190 utilities and lighting design firms, on board. That kind of momentum creates even stronger justification for stakeholders to join Lighting Facts, to the ultimate benefit of consumers.

Because of the growing interest in SSL for street lighting applications on the part of cities nationwide, DOE launched a Municipal Solid-State Street Lighting Consortium in April 2010. The goal is to share field experience and data in order to speed up the learning curve for buying and implementing high-quality, energy-efficient LED street lights. The Consortium hosted a kickoff webcast in May and a second one in July. In September, it held its first annual meeting and joined with the City of Los Angeles to host its first southwest regional workshop, with eight regional workshops planned for 2011. Open to municipalities, utilities, and energy efficiency organizations, with participation at various levels from other interested parties with investments in LED street lighting, the Consortium currently has more than 300 members, making it

already far larger than we ever expected.

Last year also saw the launch of the first eight SSL manufacturing R&D projects funded by DOE. They range from the development of lithography and epitaxy tools for LED manufacturing, to the creation of the country's first pilot OLED manufacturing facility. These projects join other DOE-funded SSL projects in the areas of core technology and product development, as we try to move the needle forward as quickly as possible to advance the technology.

DOE's R&D program has been a driving force in helping to do that, and I encourage you to join me at the eighth annual DOE SSL R&D Workshop, which will be held February 1-3 in San Diego. There's still time to register. These workshops attract leading scientists and lighting experts from across the country, who gather to share insights and perspectives on this fast-moving technology. To learn more about the San Diego workshop, or to register, visit www.ssl.energy.gov/sandiego2011.html.

I'm looking forward to more solid-state lighting advances in 2011, on all fronts. I'll fill you in soon on some of DOE's plans for the coming year. The success of our efforts depends to a large extent on our partners, so on behalf of DOE, I thank all of you for your continued commitment and support.

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