



Guiding Market Introduction of High-Efficiency, High-Performance SSL Products

The U.S. Department of Energy (DOE) has developed a comprehensive national strategy to guide market introduction of solid-state lighting (SSL) for general illumination. DOE's commercialization support plan draws on key partnerships with the SSL industry, research community, standards-setting organizations, energy efficiency groups, utilities, and others, as well as lessons learned from the past. Commercialization support activities are closely coordinated with research progress to ensure appropriate application of SSL products and avoid buyer dissatisfaction and delay of market development. DOE's role is to:

- Help consumers, businesses, and government agencies differentiate good products and applications.
- Widely distribute objective technical information.
- Coordinate SSL commercialization activities among federal, state, and local organizations.
- Communicate performance targets to industry.

DOE SSL Pathways to Market



SSL Quality Advocates. DOE's SSL Quality Advocates program is a voluntary pledge program to assure that LED lighting, as it reaches the market, is represented accurately. Participation in SSL Quality Advocates is open to all who manufacture, sell, and recommend the best in LED lighting. Those who take the pledge become part of a growing community of SSL Quality Advocates across the lighting supply chain committed to supporting continuous improvement of SSL product quality.

www.ssl.energy.gov/advocates.html



ENERGY STAR® for SSL. ENERGY STAR is a voluntary energy efficiency labeling program identifying products that save energy, relative to standard technology. The first ENERGY STAR-labeled SSL products arrived on the market in November 2008. The ENERGY STAR label on SSL luminaires provides consumers with confidence that these products meet efficiency and performance criteria established by DOE in collaboration with industry stakeholders. www.ssl.energy.gov/energy_star.html



GATEWAY Technology Demonstration. Demonstrations showcase high-performance LED products for general illumination in a variety of commercial and residential applications. Demonstration results provide real-world experience and data on state-of-the-art SSL product performance and cost effectiveness. Performance measurements include energy consumption, light output, color consistency, and interface/control issues. The results connect DOE technology procurement efforts with large-volume purchasers and provide buyers with reliable data on product performance.

www.ssl.energy.gov/gatewaydemos.html



CALiPER. DOE's testing program provides unbiased information on the performance of a widely representative array of commercially available SSL products for general

illumination. Test results guide DOE planning for research and development, design competitions, technology procurement activities, and ENERGY STAR; furnish objective product performance information to the public; and inform the development and refinement of standards and test procedures for SSL products. www.ssl.energy.gov/caliper.html



L Prize. The L Prize™ competition aims to accelerate development and adoption of SSL products to replace the common light bulb. The DOE L Prize challenges industry to develop replacement technologies for two of today's most widely used and inefficient products: 60W incandescent lamps and PAR 38 halogen lamps. It also calls for development of a 21st Century Lamp that delivers ultra-high efficiency and performance. www.lightingprize.org



Lighting for Tomorrow. The Lighting for Tomorrow competition recognizes innovative, attractive, energy-efficient residential lighting design. Sponsored by DOE, the American Lighting Association (ALA), and the Consortium for Energy Efficiency, the competition was launched in 2002 with an initial focus on CFL fixtures. In 2006, a category for solid-state lighting was added. Winners are announced at the annual ALA conference. www.lightingfortomorrow.com



Next Generation Luminaires. The Next Generation Luminaires™ competition recognizes excellence in the design of energy-efficient LED commercial lighting luminaires. Sponsored by DOE, the Illuminating Engineering Society of North America, and the International Association of Lighting Designers, the competition was launched in May 2008. Winners are announced at the annual Strategies in Light conference. www.ngldc.org

STANDARDS

Technical Support for Standards. DOE provides national leadership and support for the development of new test procedures and standards for SSL, working closely with the Illuminating Engineering Society of North America, the National Electrical Manufacturers Association, the Next Generation Lighting Industry Alliance, the American National Standards Institute, and other organizations to accelerate the standards development process, facilitate ongoing collaboration, and offer technical assistance. The first national standards and rating systems for SSL products were issued in 2008, and more will follow. www.ssl.energy.gov/standards.html



TINSSL. DOE's Technical Information Network for Solid-State Lighting (TINSSL) increases awareness of SSL technology, performance, and appropriate applications. A coalition of representatives from energy efficiency organizations and utilities participate in monthly meetings to share information and updates, working closely with DOE to produce SSL outreach materials and support outreach events and activities. TINSSL members include the Consortium for Energy Efficiency, Northeast Energy Efficiency Partnerships, Northwest Energy Efficiency Alliance, Midwest Energy Efficiency Alliance, Pacific Gas & Electric, Southern California Edison, and Energy Trust of Oregon. www.ssl.energy.gov/technetwork.html

For more information on the DOE SSL program, see www.ssl.energy.gov.

EERE Information Center
1-877-EERE-INF (1-877-337-3463)
www.eere.energy.gov

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