



U.S. Department of Energy
Energy Efficiency and Renewable Energy

Update: Solid State Lighting Technology Demonstrations

Bruce Kinzey

Pacific Northwest National Laboratory

April 24, 2007



Purpose of Market-Readiness Demonstrations

To demonstrate newly commercial LED products for general illumination in a variety of real world, appropriate applications that will clearly demonstrate the state of the art in both performance and cost effectiveness.

Goal: to facilitate the rapid market penetration of state of the art solid state lighting products.

- large scale purchases or promotions of *successful* products will follow the demonstrations



Approach

Teaming agreements for each demonstration to be formed among:

- **Manufacturers-** donate products to be tested and participate in design activities as desired.
- **Host site organizations-** provide site for demonstration and willingness to participate in demonstration-related activities.
- **Utilities/energy efficiency organizations-** provide contacts with and assurances to host site organizations as necessary. Also, participate in post-demonstration promotion of successfully demonstrated products.
- **PNNL-** identify products suitable for demonstration, assist in identifying and evaluating suitable host sites, provide organization of the overall activity, evaluate the results (both quantitative and qualitative), conduct product performance and life testing, and support subsequent project information dissemination.



Host Sites and Products

- Host sites – 61 proposals received from 11 federal agencies across a range of applications; some other state, municipal and university locations have also volunteered. Private sector sites under development.
- Products – ceiling fixtures; MR-16s; light bars for shelf, display, refrigerated case applications; outdoor and street lighting; landscape; and security fixtures.



Timeline

- Due Date for Responding to Solicitation: April 16, 2007
- Initial Selection of Products: May 1, 2007
- Initial Product Samples Due to PNNL: June 1, 2007
- Product Short Term Testing Completed: July 2, 2007
- Installations Initiated: August 1, 2007
- Demonstration Evaluations Completed: February 1, 2008



Contact

Bruce Kinzey

Pacific Northwest National Laboratory

620 SW 5th Ave, Suite 810

Portland, OR 97204

T (503) 417-7564

F (503) 417-2175

Bruce.Kinzey@pnl.gov