

GATEWAY Demonstrations Showcase LED Product Performance

The U.S. Department of Energy (DOE) Solid-State Lighting (SSL) Technology Demonstration GATEWAY program features high-performance SSL products for general illumination in a variety of exterior and interior applications. Results provide real-world experience and data on product performance and cost effectiveness. Performance measures include energy consumption, light output/distribution, and installation/interface/control issues. Qualitative performance is investigated via feedback surveys of the relevant user communities.



LED downlights and undercabinet lights from 2008 Tour of Homes in Eugene, Oregon

DOE assembles demonstration teams that match host sites with appropriate products and partners. Teams typically include a product manufacturer, a host site, and an energy efficiency organization or local utility where applicable.

- **Manufacturers** provide products for demonstration and may assist in site selection and installation.
- **Host sites** provide locations for demonstrations, assistance with installation and evaluation/measurement, and a willingness to participate in activities related to the demonstrations, such as site visits, photographs, and publicity.
- **Energy efficiency organizations and utilities** provide contacts with potential host site organizations and assist with related outreach and promotional activities.

Team members are not restricted to a single team or a particular project. A large hosting organization might demonstrate products from more than one manufacturer, or a single manufacturer might participate with multiple products designed for different applications and locations.

Sharing Results

Results from DOE GATEWAY demonstrations enable users to evaluate and refine their lighting requirements before making large-scale purchasing decisions. Demonstration project results are shared through the DOE SSL Web site, workshops, webcasts, articles in trade publications, and other related activities.

DOE is also considering future establishment of dedicated working alliances or consortiums involving multiple team members, host site organizations, and other entities for sharing information among large groups of users with similar needs. Participants in these alliances might further join or initiate procurement efforts for high-efficiency applications using information gained from demonstration projects, resulting in large-scale purchases and/or promotion of featured products.

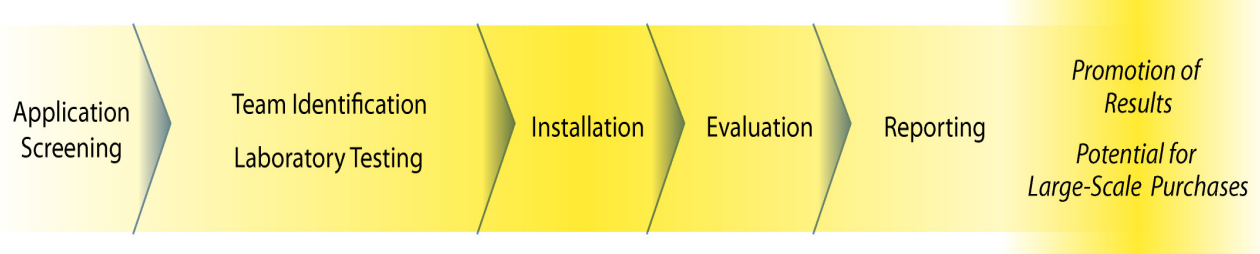
Other Ways to Participate

For parties conducting their own demonstrations and interested in widely sharing results, or for demonstrations already underway, DOE has developed the GATEWAY Demonstration Registry and Reporting Template. Demonstrations conducted using the template or meeting its requirements will be incorporated into an online registry (currently under development), and the results will be widely shared. Learn more at www.ssl.energy.gov/gatewaydemos.html.



Bi-level parking lot lighting demonstration, Sacramento, California

DOE TECHNOLOGY DEMONSTRATION PROCESS




- **Initial Screening:** Products and sites are carefully screened to ensure a suitable match; coupled with preliminary energy and economic evaluations a “go/no-go” decision is made with respect to the overall project.
- **Participant Team Formation:** Host sites and other team members are identified to carry out the actual demonstration. All roles and responsibilities are detailed in a consensus “teaming agreement.”
- **Laboratory Testing:** Concurrent with team identification, testing of sample products is conducted to establish or verify important measures of performance.
- **Installation:** Products are installed with appropriate pre- and post-measurements; additional demonstration steps are carried out, including any publicity and education events.
- **Evaluation:** Results are evaluated based on actual measured values, including energy and cost savings and related economic analyses, as well as qualitative occupant and user responses to the installed LED light source.
- **Results Reporting:** Results of successful demonstrations are widely publicized; results from long-term testing are released as they become available. While no sales of demonstrated products are assured, DOE expects large-scale product purchases or promotions by demonstration team members will also occur at this stage for products that have performed to buyers’ satisfaction.

For more information, see www.ssl.energy.gov/gatewaydemos.html or email techdemos@pnl.gov.

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