



October 16, 2009

Richard Karney
US Department of Energy
1000 Independence Avenue SW, EE2J
Washington, DC 20585

Alex Baker
US Environmental Protection Agency
Ariel Rios Building 6202J
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Mr. Karney and Mr. Baker:

The Consortium for Energy Efficiency (CEE) respectfully submits the following comments in response to Draft 3 of the criteria for ENERGY STAR Integral LED Lamps, released by DOE on September 18, 2009. CEE's previous comments on ENERGY STAR SSL stand and are supplemented by this letter.

The following comments, which were developed by the CEE Solid State Lighting Committee (Committee), are supported by the organizations listed below.

Overarching Comments on Program Coordination

CEE is the binational organization of energy efficiency program administrators and a staunch supporter of the ENERGY STAR Program. CEE members are responsible for ratepayer-funded efficiency programs in 35 U.S. states and 5 Canadian provinces. In 2008, CEE members directed 83 percent of electric efficiency program budgets and 90 percent of gas efficiency program budgets in the two countries. In short, CEE represents the groups that are actively working to make ENERGY STAR the relevant platform for energy efficiency across North America.

CEE members highly value the role ENERGY STAR plays in differentiating energy efficient products and services that they support locally. In our past comments on ENERGY STAR SSL specifications, we have repeatedly stressed the need for the program to be managed consistently across products and services regardless of the managing agency. We believe that the new partnership on ENERGY STAR that was announced by EPA and DOE in late September is a promising sign of the administration's commitment to achieve transformative energy efficiency improvements—a goal that we share. We understand that there will be an open stakeholder process to more fully define the future of the ENERGY STAR lighting program in the next few months and we look forward to working with you during that process.

Moving forward, one area of particular interest to CEE is the continued development of up-to-date, technically robust ENERGY STAR specifications that strengthen the value of the brand by identifying products CEE members can promote in their lighting efficiency programs. We recognize that specification development can be challenging in an area as fast moving as SSL technology and we stand ready to assist ENERGY STAR and provide input on specifications whenever possible. One area on which we are already working

that may inform ENERGY STAR's specification development efforts is the collection and provision of SSL product information, such as test data. In June, the CEE Board of Directors adopted a set of Recommended Guidelines that convey to manufacturers what SSL product information efficiency programs need in order to evaluate their products and the necessary characteristics of a bi-national database that would house this information and provide an expedited, efficient way for CEE members to access the data. We are exploring further development of this database now and will keep ENERGY STAR apprised of our progress.

Technical Comments on ENERGY STAR Requirements for Integral Lamps

Dimming

Dimming capability in SSL integral lamps continues to be of interest to CEE members, particularly those who expect to promote SSL integral lamps as incandescent replacements in the residential sector. The Committee supports ENERGY STAR's efforts to ensure that dimming and non-dimming products are clearly labeled as such and to ensure consumers can find more information on compatibility through manufacturer websites. An additional step that the Committee requests is for ENERGY STAR to specify whether each qualified lamp is dimming or non-dimming on the qualified products list. This will be particularly important for programs that choose to promote a subset of qualified lamps.

Nonstandard Lamps

The Committee has reviewed the proposed beam graphics that would be used on the packaging of nonstandard lamps. Though not expert in packaging design, based on their experience educating consumers through their efficiency program efforts the Committee believes that these represent a good start to communicate to consumers the applications for which the nonstandard lamp is intended. To improve the effectiveness of the packaging for nonstandard lamps, we recommend two changes. First, we recommend emphasizing beam angle in the graphics to enable consumers to ascertain whether the lamp can replace a flood or a spot product. (This characteristic may be more important in some applications than others, e.g. recessed downlights and track fixtures.) Second, if there are applications that are inappropriate for the nonstandard lamp, we recommend that this be indicated in some way on the packaging as well.

Reliability

In its past comments on the ENERGY STAR SSL integral lamp specification proposal, the Committee has stated its general support for steps to ensure that all qualified products perform reliably and meet consumers' expectations. Recognizing that both the light source and overall product design impact the product's performance and lifetime, we support the proposal to test the complete integral lamp for 6,000 hours to determine lumen maintenance and to require a rapid cycle stress test for all qualified products. Though some details of the testing have been changed to accommodate SSL technology, our understanding is that the tests required are generally consistent with those used in the

ENERGY STAR CFL specification. This analogous approach should help to ensure that qualified integral lamps (whether they use CFL or SSL technology) perform well over time.

Color

The Committee thanks ENERGY STAR for responding to our past recommendation to include the deep red (R-9) metric in addition to the typical CRI metric, recognizing the limitations of CRI for SSL sources. We support the addition of the R-9 value to the ENERGY STAR specification, though we ask ENERGY STAR to provide more detail on its analysis and rationale in choosing the level for qualification (greater than 0). Our intention in suggesting the inclusion of R-9 in the specification was to ensure that consumers' needs for color rendering were met and we ask ENERGY STAR to explain how the proposed R-9 level of greater than 0 achieves that objective.

Decorative Lamps

The Committee supports the modifications made to the minimum light output for decorative lamps, particularly for those less than 25 watts, because it should result in greater product availability in this category. This is important to enable efficiency programs to promote lower wattage decorative applications that generate significant energy savings, such as marquee lamps. To the extent that qualified SSL integral lamps have lower lumen output than their incandescent counterparts, there is a risk of negative consumer perceptions that all SSL products are too dim. We encourage ENERGY STAR to work with energy efficiency programs on consumer educational efforts so that the low lumen products aren't placed in inappropriate applications.

Remote Phosphor Products

The Committee asks for clarification on whether, and if so how, remote phosphor products would be covered by the proposed ENERGY STAR specification. It is our understanding that these products may require additional and/or modified testing requirements and we are unsure whether the specification scope is intended to include them.

Effective Date

In the cover letter accompanying the proposed specification, ENERGY STAR indicated that the effective date of the specification would be 270 days after the final version is published. The Committee wishes to inform ENERGY STAR that several members of the Committee have indicated plans to promote integral SSL lamps that perform well enough to meet all aspects of the proposed specification in advance of the effective date. In taking this step, these members aim to generate additional energy savings and support early entrants to market. The Committee is exploring how to meet these members' needs to identify "pre-qualifying" products and we would welcome the opportunity to discuss this matter with ENERGY STAR over the coming weeks.

Thank you for your consideration of these comments. Please contact CEE Senior Program Manager Rebecca Foster at (617) 337-9265 with any questions.

Sincerely,



Marc Hoffman
Executive Director

CC: Kathleen Hogan, DOE
Jim Brodrick, DOE
Ann Bailey, EPA

Supporting Organizations

California Energy Commission
Cape Light Compact
Efficiency Maine
Efficiency Vermont
National Grid
New York State Energy Research & Development Authority
Northeast Energy Efficiency Partnerships
NSTAR
NV Energy
Pacific Gas & Electric
Sacramento Municipal Utility District
Southern California Edison
Snohomish County Public Utility District No. 1
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Wisconsin Focus on Energy Program