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

Dear Mr. Baker:

The Consortium for Energy Efficiency (CEE) respectfully submits the following comments in response to the *ENERGY STAR® Lamp Draft 1 Specification*, released by the Environmental Protection Agency (EPA) on October 21, 2011.

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 45 US states and eight Canadian provinces. In 2010, CEE members directed over $7.5 billion of energy efficiency program budgets in the two countries. In short, CEE members are groups that are actively working to make ENERGY STAR the relevant platform for energy efficiency across North America.

CEE highly values the role ENERGY STAR plays in differentiating energy efficient products and services that the CEE membership supports locally throughout the US and Canada. We appreciate the opportunity to provide these comments.

## Scope

In addition to the products currently covered, CEE requests that MR-16s be included in the scope of the lamp specification. While we recognize that the lamp specification is residentially focused, many of the products included in the current scope are often used in commercial applications as well. As a result, preventing MR-16s from becoming ENERGY STAR qualified creates a significant product gap in the commercial market, and we anticipate that the absence of a label will create confusion for those consumers. In addition, residential programs are looking to capture all available energy savings from lighting as the Energy Independence and Security Act lighting standards begin to take effect in 2012, and MR-16s would be appropriate to use in some residential applications.

Excluding MR-16s from the scope will lead to significant programmatic challenges as both residential and commercial programs intend to promote these products. Programs rely on ENERGY STAR as their primary resource for identifying products eligible for rebates and providing verified data on the performance of these products. Without the ENERGY STAR label, programs will face the challenge of identifying high quality MR-16s, indicating which products are included in their program to consumers, and collecting performance data to provide to their regulators. Given the importance of ENERGY STAR qualification to the market and programs, we recommend that EPA include MR-16s in the scope of the lamp specification.

## Efficacy

CEE supports the efficacy requirements in the proposal for omnidirectional and decorative lamps, but recommends higher requirements for directional lamps. Based on the ENERGY STAR qualified product list for Light Emitting Diode (LED) lamps as of December 1, 2011, the average efficacy of a qualified directional LED lamp is 51.4 lumens per watt, and there are qualified directional LED lamps with efficacies as high as 87.5 lumens per watt. The proposed efficacy requirements (40 lumens per watt for <10 watt lamps and 45 lumens per watt for ≥10 watt lamps) prevent efficiency programs from being able to capture the additional energy savings that are technically achievable with these products. This is because programs are only able to claim energy savings based on the ENERGY STAR efficacy requirements for the lamp, and not individual product performance. CEE therefore recommends increasing the efficacy requirements to support these higher performing LED products, as opposed to reinforcing fluorescent lamps, which are not well suited for directional applications.

Based on our analysis, we would support increasing the directional lamp efficacy requirements to be consistent with those proposed for decorative lamps (45 lumens per watt for <10 watt lamps and 50 lumens per watt for ≥10 watt lamps). These requirements would be more stringent, while still allowing a significant portion of currently ENERGY STAR qualified fluorescent lamps (43%) and LEDs lamps (71%) to qualify. CEE also examined the omnidirectional efficacy requirements (55 lumens per watt for <10 watt lamps and 60 lumens per watt for ≥10 watt lamps), but determined that only one fluorescent reflector lamp would qualify. We recognize that including fluorescent lamps with the ability to meet the requirements is necessary to provide programs with products to promote at all price points.

## Lifetime

With respect to the proposal of standardizing product lifetimes at 10,000 hours, CEE is concerned that decreasing the lifetime requirements for LEDs has the potential to negatively impact total energy and economic savings because it would hinder programs' ability to claim energy savings into the future, which is an important component in cost-effectiveness. EPA has communicated that a potential benefit to a 10,000 hour lifetime requirement could be providing consumers with ENERGY STAR Qualified LED lamps at more palatable price points. We are

uncertain, however, because EPA has provided only anecdotal evidence to support this concept. In order for EPA's premise to be convincing to programs, CEE recommends that EPA conduct a detailed analysis that clearly demonstrates a linkage between shortened lifetime requirements, decreases in retail prices and increased consumer uptake of LED lamps. Such evidence would allow CEE members to analyze the level of risk to programs presented by the potential reduction in claimable energy savings, and likewise would allow programs to more accurately characterize any offsetting benefits arising from increased consumer uptake of lower priced products.

We also point out that CEE members that follow the technology anticipate that higher production volumes of LED lamp components (e.g., emitters and drivers) will lead to reduced manufacturing costs for these products. Therefore, we believe it is likely that the price of LED lamps will decrease in the near future absent of any change in performance lifetime requirements. For this reason, we note that any benefits stemming from price reductions attributable to the shorter lifetime requirement ought to be measured net of cost reductions arising from production or other industry efficiencies unrelated to product life.

Lastly, for programs that choose to support lamps with longer lifetimes (e.g., 35,000 and 50,000 hours) it would be of great benefit for ENERGY STAR to verify the performance of these products and publish this information on the qualified product list. This data is critical to ensure that programs are able to claim the appropriate savings and offer robust rebates for lamps that have significantly longer lifetimes.

## Reliability

Given consumer dissatisfaction related to premature failure of compact fluorescent lamps (CFLs), we applaud the requirements of both the rapid cycle stress test and elevated temperature test for all replacement lamps. We recommend that these requirements be included in the final version of the specification.

## Color Requirements

CEE supports the increased stringency of the color requirements, including correlated color temperature (CCT), color rendering index (CRI), color maintenance, and color uniformity, as long as the price implications don't disadvantage promotion in programs. In other words, increased color consistency only provides value to programs if the lamps are saleable. If the price creates a barrier to purchase, programs won't be able to promote or claim savings on these products. Therefore, we ask that EPA conduct further assessments regarding the price implications of the proposed color requirements and report their analysis and findings to all stakeholders before proceeding.

## Dimming Requirements

Dimming continues to be a high priority for efficiency programs. We are encouraged by EPA efforts with industry stakeholders and the Lighting Research Center to develop a definition,

method of measurement, and compatibility metric for dimmable lamps. Once this work is finalized, CEE recommends that EPA host a discussion on whether they should be applied to all ENERGY STAR lamps versus just those that claim to be dimmable. We would also like to communicate our strong desire to see these requirements included within the first version of the lamp specification.

Thank you for your consideration of these comments. Please contact CEE Program Manager Eileen Eaton at (617) 337-9263 with any questions.

Sincerely,

Ed Wisniewski

Executive Director