



December 9, 2011

Mr. Alex Baker
ENERGY STAR Lighting Program Manager
U.S. Environmental Protection Agency
Office of Air and Radiation

Re: Comments on draft proposal for ENERGY STAR Lamps Specification Version 1

Dear Mr. Baker:

Thank you for the opportunity to provide comment on the latest draft proposal for the ENERGY STAR Lamps Specification Version 1. After reviewing the Agency's first draft, Northeast Energy Efficiency Partnerships (NEEP) would like to provide a number of observations and recommendations as the Agency works to hone its approach going forward.

Northeast Energy Efficiency Partnerships (NEEP) is a non-profit organization that facilitates regional partnerships to advance the efficient use of energy in homes, buildings and industry in the Northeast U.S. NEEP works to leverage knowledge, capability, learning and funding through regionally coordinated policies, programs and practices. As a regional organization that collaborates with policy makers, energy efficient program administrators, and businesses, NEEP is a leader in the movement to build a cleaner environment and a more reliable and affordable energy system.

The successful and rapid introduction of quality, market ready solid state lighting (SSL) is a major focus of NEEP's regional strategies to speed the market adoption of high efficiency products. See for example the [DesignLights™ Consortium SSL Qualified Products List](#) (DLC SSL QPL) - a project developed and managed by NEEP on behalf of energy efficiency program administrators in the US and Canada - to distinguish quality SSL products for the commercial sector as a complement to the ENERGY STAR lighting program focused on broad consumer markets.

We applaud ENERGY STAR's efforts to develop a technology-neutral specification that brings what had been disparate sets of requirements for various lighting technologies under a single criterion for qualification. We appreciate the value proposition that a single label brings to mass market consumers. NEEP's sponsoring efficiency programs have utilized the ENERGY STAR label to promote lighting products for over a decade and hope to continue doing so for years to come. A set of technology-neutral criteria will enable them to continue their simple message: "Look for the ENERGY STAR label when shopping for quality and efficient lighting products."

We agree with ENERGY Star's efforts to focus on product quality over the need to eke out slightly higher efficiency levels, illustrated through your focus on tightened performance requirements on a host of metrics: start up times, run up times, color consistency, light outputs, high heat testing, etc. We continue to share an overarching concern with product quality and consumer satisfaction.

There is one area of the proposal, however, where we hold distinct reservations—the lifetime requirement of 10,000 hours across all technologies. After carefully considering the pros and cons of this approach, we remain skeptical of its wisdom. Below are several issues we'd like to raise with the Agency:

- Product quality of efficient replacement lighting and its ability to instill confidence in consumers should be the key driver for the development of this criterion. We are concerned that there is insufficient knowledge regarding whether a theoretical shorter life LED product

would produce a marked shift in performance requirements for LED products. The changes in the products designed to meet only 10,000 hours (to reduce product cost and testing time) may affect related attributes of LED lamps. This “collateral damage” is a risk to overall product quality that we’re not comfortable currently supporting. Without commercially available products on the market today to scrutinize, we don’t know the full implications of this change to LED quality and performance.

- LED products with these shorter lifetimes may come with performance issues unaccounted for in the criteria. While NEEP is concerned about achieving price reductions in LEDs, we would need further assurances that reducing the hours of use to 10,000 will not degrade the products in tangible ways.
- Outstanding questions that we pose to the ENERGY STAR Lighting team:
 - What might be the primary technology responses to produce products that only meet a 10,000 hour requirements?
 - How might these changes affect product performance and thus consumer satisfaction?
 - Are these issues adequately addressed by other parameters in the spec?
- To date, government programs have challenged industry to meet a high level of product quality and longevity (e.g., DOE’s SSL Program). We should be very thoughtful in making changes to precedents set and promoted by these types of programs. As an efficiency industry, we’ve been messaging to manufacturers about long life for many years now. This type of shift in the ENERGY STAR criteria would represent a big shift in this message to manufacturers.
- Efficiency programs must seriously consider cost effectiveness with any product they promote. Reducing the lifetime of LEDs without proportionally dropping product cost could significantly reduce program impacts by eliminating some products as not cost-effective.
- NEEP shares a real concern about the current cost of LED replacement products. However, if our experience managing the DLC SSL QPL has taught us anything, it’s that the pace of innovations and cost reductions has been far beyond our initial forecasts. Before lowering the bar on this technology, we should allow industry the chance to meet/exceed our expectations. We have concerns that once we make this change, it will be very difficult to “undo.”
- Until there is more information available about the resulting cost and performance implications due to lowering lifetimes for LED replacement lamps, we recommend maintaining a longer lifetime (lumen maintenance) requirement for these products. In the spirit of maintaining continuity, we recommend maintaining the 25,000 hour lifetime requirement for LED products.

Besides the issue of lifetime requirements, we would also like to touch on a couple of other issues:

- The exclusion of LED replacement lamps for low-voltage lamps (e.g. 12V MR-16) will negatively impact programs, both residential and commercial. Energy efficiency program administrators rely on the rigor and scrutiny that ENERGY STAR product qualification ensures. Consumers, likewise, rely on the assurance they get from seeing the ENERGY STAR logo on a product. Excluding MR-16 LED replacement lamps from the specification will result in program administrators scrambling to self-qualify products. It could also yield confusion in the consumer market accustomed to using the ENERGY STAR logo for guidance to select quality, energy efficient lighting products.



- The proposed lamp packaging requirements go a long way in helping to improve consumer understanding/satisfaction particularly with respect to light output and light color. We strongly support the standardization of both the incandescent wattage equivalent claims as well as the naming nomenclature for certain color temperature ranges (i.e. warm white, neutral white, cool white).
- One suggestion for the Color Spectrum Educational Tool would be to include an indication on the spectrum with where traditional incandescent bulbs would fall. Consumers would most often be comparing color temperatures to that of incandescent bulbs.

Thank you for your consideration of these comments. We are happy to discuss any of them in more detail.

Sincerely yours,

David J. Lis, Emerging Technologies Program Manager - djlis@neep.org ext. 127

Linda Malik, Residential Program Manager - lmalik@neep.org ext. 115

Jonathan Linn, PE LC, Commercial Programs Manager - jlinn@neep.org ext. 134