

Northeast Energy Efficiency Partnerships, Inc.



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Dear Rich and Alex-

Northeast Energy Efficiency Partnerships (NEEP) appreciates the opportunity to offer comment on the proposed expansion of SSL Category A of the ENERGY STAR Solid State Luminaire (SSL) specification as issued in August. Note that NEEP is also offering comments to EPA since the subject of a significant portion of our comments is relevant to that agency as well.

As funded members of TINSSL, we are constantly striving to maintain an understanding of the SSL needs of the northeast region's stakeholders and communicate them to the appropriate agency(ies). One of the key needs of efficiency program administrators and the larger market continues to be clear and reliable information on what specific applications and products are technically "ready" for promotion, purchase and utilization. To this end, the proposed expansion of Category A is a useful and appropriate intention. Though, NEEP would like to note concerns regarding minimum light output requirements as noted in the comments, which we support, submitted by the Consortium for Energy Efficiency (CEE) with respect to Category A.

Like numerous other organizations, including CEE, NEEP has identified the issue of lumen maintenance testing as described in the SSL specifications, including Category A as well as EPA Residential Light Fixture (RLF) version 4.2, as needing critical attention before release of the ENERGY STAR specification. Recalling the June, 2006 report **Compact Fluorescent Lighting in America: Lessons Learned on the Way to Market** prepared by Pacific Northwest national Laboratory for DOE as part of its SSL program, avoiding technology issues and failures are a

critical part of achieving consumer acceptance, including observations from page *iii* of the Executive Summary that “performance is more important than appearance” and “manufacturers and energy-efficiency groups should coordinate to establish minimum performance requirements.”

The vitally important technical performance attribute of lumen maintenance, or as efficiency program administrators would tend to call “lifetime”, is one of the most important performance measures there is with respect to solid state lighting and one upon which adoption and acceptance by consumers rests. Currently, issues around testing methodologies for this attribute suggest that there is not, today, an approach that meets all of the essential requirements of transparency, full support of stakeholders, consistency and full vetting. Examples of these issues include:

- Transparency around development and full vetting of testing procedures
 - Mitigation of market and regulatory risk by efficiency program administrators suggests that they be fully enabled to understand the processes, details and positions of the parties involved in development of lumen maintenance testing procedures
- Validity of ASSIST junction temperature test methodology (EPA)
 - Percent of maximum temperature method has been inadequately vetted and/or proven
- Validity and consistency of in situ junction temperature testing (DOE)
 - “Temperature Measurement Points” are located by the manufacturers and are therefore not consistently located relative to the actual junction
 - in situ temperature testing of the junction temperature relies on achieving various specified temperatures by varying the voltage, which is unrealistic since true in situ would see constant voltage
- Quality control on and public access to underlying testing data (DOE)
 - Any “pass” or “fail” associated with tests should have the underlying data available for public review.

Therefore, in order to respect the guiding principles of the federal government’s pursuit of commercialization of solid state lighting (from the **Compact Fluorescent Lighting in America: Lessons Learned on the Way to Market** report) , and to increase the probability of acceptance by efficiency programs, consumers and industry alike, NEEP respectfully recommends the following:

- We now join the Consortium for Energy Efficiency in suggesting the immediate suspension of the RLF 4.2 specification with respect to SSL until such time as lumen maintenance testing issues can be resolved.
- We recommend also that DOE postpone the effective date of its SSL specification until such time as lumen maintenance testing and minimum light output issues can be resolved.
- It is our strong suggestion that EPA and DOE work collaboratively to begin anew the process of developing a testing procedure for lumen maintenance.

As strong supporters of the effort to commercialize SSL light fixtures, we would be ready to serve as advisors, along with others, to resolve outstanding issues with respect to ENERGY STAR for SSL.

NEEP appreciates the opportunity to comment and encourages follow-up questions or discussion. I can be reached at (203) 608-0309 or via email at eschmidt@neep.org.

Thank you.

Regards,

Edward Schmidt
Director of Regional Initiatives