Setting Standards for Excellence

October 5, 2005

The NEMA Lamp Section submits this first set of written comments in response to the Department of Energy's Energy Star Program request for stakeholder input on the draft revisions to the CFL Energy Star specification dated August 30, 2005.

These comments codify the oral comments made on NEMA companies' behalf during September 20, 2005 stakeholder meeting.

As became clear during the morning session, there are a lot of points on which we desire clarification, and some points that we think need to be changed. Here we broadly indicate our major concerns. We will submit an additional set of written comments at the October 14 deadline to supplement and expanding on some of the comments below and provide specific proposals for changes to the draft.

The August 30 proposed specification reflects some big, and to us, surprising, changes.

Efficacy levels for bare and covered products:

We are interested in how these numbers were developed. It seems to us that the large increases in the efficacy numbers were generated with spiral lamp configurations in mind. Our companies also make spiral lamps, so we are not just throwing stones at others' products. Even so, saving energy is much more than having high lpw ratings. In fact, it is easy to confuse high efficacy with energy savings.

With respect to the efficacy criteria, and more specifically with respect to saving energy, we offer these 5 comments.

1. By far, the chief energy savings from CFL lamps is realized when a CFL replaces an incandescent lamp, much more than replacing an 18W CFL with a 17W CFL.

2. A key to saving energy is market penetration, and sometimes non-spiral lamp configurations are preferred over the spiral designs in particular, A19 "look-alikes" are preferred by many, and spirals are not always the best design for these lamps perhaps because of consumers' preference for the familiar A19 shape, or perhaps because of consumers' desire for the light distribution pattern they have come to expect. The reason we offer lamp designs other than spirals is that we have found that an important fraction of consumers want other shapes, and these shapes save energy when consumers use them instead of incandescent lamps – energy that will not be saved if these consumers use A19 incandescent lamps instead.

   Spirals are good for many applications – that is why we make them – but not for all applications.

Further, we do not think that the Energy Star criteria should so specifically target a particular technology when many technologies offer the bulk of the savings to be realized from the replacement of incandescent lamps. We will propose changes to the specification that reflect these alternate designs.

3. The proposed specification does not recognize the important energy savings that come from non-LPW considerations. For example, important energy savings come from dimmable CFLs and 3-way CFLs. We will propose changes that reflect the importance of these designs.

4. The proposed specification does not recognize that energy savings may relate more closely to lamp efficacy in the particular application than to the rated lamp efficacy. Lamp manufacturers have tried to capture these savings by the use of amalgam designs. Such designs have their maximum efficacy at a different temperature than non-amalgam designs, and more importantly, they maintain their high efficacy over a much broader temperature range – i.e., a much broader application range – than non-amalgam lamps. We raise the concern here even though our chief message is not that amalgam lamps need different LPW standards. Rather, our concern is that amalgam lamps have longer run-up times than non-amalgam lamps, and the run-up part of the proposed specification penalizes amalgam lamps, and thus makes it more difficult for consumers to realize the potential energy savings that amalgam lamps can bring to the application.

5. Finally, we discussed in some detail during the development of the v. 3.0 Energy Star specification that the efficacy standards should not be changed until some control was gained over the allowable chromaticities of the lamps. The proposed v. 4.0 specification sets chromaticity limits on lamps, but we have no experience on the effect of these chromaticity limits on the efficacies found in the marketplace. We think it is better to gain some field experience before making big efficacy changes. We favor a more gradual approach.

For all of the above reasons, we think that the proposed specification makes too big a leap in efficacies. We will suggest changes in our forthcoming written comments.

Correlated Color Temperatures

As mentioned above, there is a strong technical link between CCT and efficacy, and for that reason, we think increases in efficacy should be gradual until we know the effect of the new chromaticity limits.

In addition, we note that the proposed specification provides that manufacturers must identify one of a set of CCTs for marketing their products. We are concerned that these “kelvins” designations will mean little or nothing to the consumer. The DOE, EPA and NEMA have been active in 2005 with the LRC to develop a better way to communicate the concept of CCT to the consumer. We suggest that the Energy Star specification remain flexible on how this CCT

information is to be conveyed until the results of our joint effort are formalized in late 2005 or early 2006.

Run-up time

Longer run-up times are needed for the energy saving amalgam lamps (especially bare), and we would propose that the run-up time for these lamps be left at 3 minutes. We will make a specific proposal in our written comments.

Elevated Temperature Testing for R-CFLs

We agree that data shows that additional testing is needed and acknowledge the approach presented by Jeff McCullough of PNNL. The PNNL approach is technically sound for lab scale, but is not practical, is expensive, not suited for large-scale testing and does not rely on existing consensus standards.

NEMA will examine developing a suitable test method for R-CFLs by building on the PNNL approach and provide more information in forthcoming comments.

Qualification and Re-qualification

A striking change in the proposed criteria is that past Energy Star qualified product would have to meet the new standard only a few months after it goes into effect. This is a big change from past practice and one that does not respect the investments made by manufacturers in developing these products. What is the reason for this big departure from past practice?

Further, there are many products in the "development pipeline", with their associated capital investments being made already. Under the proposed specification, these pipeline products could be qualified and introduced in the next year then be disqualified only a few months later.

This is among the most grievously felt of the changes in the proposed specification, and we will surely suggest modifications that reflect the realities of the development, manufacturing, and marketing arenas. If we are really to be Energy Star Partners, and we emphasize Partners, we will have to have a specification that reflects the costly business we are in, and that lets us recover our investments.

Independent Third Party Testing

1. *We are struck by the proposed composition of the Product Selection Committee and the Technical and Research Committee.*

   In the case of the Product Selection Committee, only one of 4 members is from industry, and there appears to be only a 1 in 3 chance that this industry person would be from a lamp manufacturer. How was this idea developed? We think this is not at all consistent with the funding mechanism, which calls for Partners to foot the entire bill. We will offer a counter proposal.

In the case of the Technical and Research Committee, there is no assurance that lamp manufacturers will be represented in this group at all. How was this decided? Whose input does this reflect? Was this proposed by other stakeholder groups? What was their rationale?

With respect to both the Product Selection Committee and the Technical and Research Committees, we make the following observations:

- so far as we know, the other stakeholder groups are not more ethical or trustworthy in their judgments than lamp manufacturers
- so far as we know, the other stakeholder groups are not more sensitive to consumer wants and needs than the lamp manufacturers
- so far as we know, the other stakeholder groups are not more technically up to date on what is possible, and what performance deviations may be explainable, than the lamp manufacturers
- so far as we know, the other stakeholder groups do not know the lighting marketplace any better than lamp manufacturers, who make their living studying and satisfying this market
- so far as we know, the other stakeholders have not developed a single energy saving product, or made the investments necessary to bring such products to manufactured reality

So why are lamp manufacturers given such a limited role in these Committees? Why wouldn't the Energy Star administration assure that manufacturers are part of these groups? We think the current proposal is out of line with the experience we bring to the discussions, and with the funding structure of this third party testing.

2. *Product nomination and selection*
As we understand the nomination process, the testing pool would be comprised of all qualified CFLs, with multiple SKUs of a particular technical model counting multiple times. We are not sure this makes as much sense as defining the testing pool as the number of different technical models in the market. For example, under the proposed specification a manufacturer with only one technical model, but with 100 SKUs of that model, might be a good "statistical" candidate for testing every cycle. This does not make good sense to us. We will consider this further and elaborate in our written comments. Our intention is to make an alternate proposal.

3. *Access to data reports*
We understand why Partners would be eligible for the consolidated trend data reports, since they are paying for them. We do not understand why others should receive these reports without charge. We feel that non-Partners, including other Energy Star stakeholders who do not pay for the testing, should pay for these reports to help offset the testing program costs. It is easy to spend other people's money. [Do we understand correctly that manufacturers who are not Partners would also have free access to these reports according to the proposed specification?]

Effective Date

The Energy Policy Act of 2005 sets 270 days as minimum lead time from finalization of new or changes to an existing Energy Star specification to the applicable effective date.

Thank you for giving NEMA the opportunity to give you this feedback. We look forward to working with you to improve this draft, as we have worked together on past versions.

END COMMENTS

Contact: Craig Updyke, NEMA, (703) 841-3294, cra_updyke@nema.org