

Northeast Energy Efficiency Partnerships, Inc.



May 26, 2009

Ms. Brenda Edwards, EE-41
Office of Energy Efficiency and Renewable Energy,
Energy Conservation Program for Consumer Products
U.S. Department of Energy
1000 Independence Avenue, SW.
Washington, DC 20585-0121

Re: Proposed Rules: Energy Conservation Standards for General Service Fluorescent Lamps and Incandescent Reflector Lamps

Docket Number: EE-2006-STD-0131
RIN: 1904-AA92

Dear Ms. Edwards,

Thank you for the opportunity to comment on the recently updated Notice of Proposed Rulemaking (NOPR) for General Service Fluorescent Lamps (GSFL) and Incandescent Reflector Lamps (IRL). Northeast Energy Efficiency Partnerships (NEEP) and our undersigned sponsors and partner organizations strongly encourage the Department of Energy (DOE) to make the necessary changes to the final rule in order to achieve the greatest possible savings.

The effort to set strong energy efficiency standards for both of the lamp categories is of paramount importance for the country and, more specifically, Northeast consumers. The estimated energy savings over the next 30 years from these new standards are substantial and historically unprecedented. Set at the highest efficiency levels, over 17 Quads of energy savings could potentially be affected by this rule, 5.9 of which would be compromised by finalizing the levels that are proposed, and maintaining the exemptions for a number of incandescent reflector lamps, in the current NOPR. To put these savings into context, compare these estimates to another previously large rulemaking; the 2001 Central Air Conditioners Rulemaking is expected to achieve 4.1 Quads.

This rulemaking comes at a time of considerable federal and state activity with respect to energy and greenhouse gas emission reductions. President Obama and his administration have publically declared their intent to reduce U.S. electricity consumption 15 percent by 2020 (a 660 billion kWh reduction). This lighting standard alone has the potential to achieve 10 percent of that aggressive goal. Similar energy use reduction goals have been set by states around the Northeast region as well, including major new energy or greenhouse gas emissions savings targets established in New York, New Jersey, Massachusetts, New Hampshire, Connecticut, Pennsylvania, Maryland and Vermont. Not only would strong lighting efficiency standards help achieve these reductions, but would have a positive impact on job creation. The DOE's own analysis estimates that the enactment of an improved standard would result in the creation of up

to 15,100 new jobs by 2012, and 42,700 by 2022, nationally, while the proposed standard level might only result in 11,600 and 19,300 jobs, respectively. Converting to jobs created in the Northeast, the improved standard would more than double the jobs created by 2022 from roughly 3,500 to 7,700¹. Energy efficiency spurs economic growth by shifting money not spent on energy costs to other goods and services, thereby indirectly creating jobs.

Greater energy efficiency translates directly to lifetime cost savings which highly depend on the price of that energy. The Technical Support Document shows strong life cycle cost (LCC) analysis results for consumers at Trial Standard Level (TSL) 5 for both IRL and GSFL. It must be highlighted that Northeastern businesses and consumers face some of the highest electricity prices (~50 percent higher than the weighted national average) in the country, only strengthening our region's call for strong lighting standards.

Electricity price comparison²

Region	Residential Prices (cents/kWh)	Commercial Prices (cents/kWh)
<u>New England</u>	<u>16.4</u>	<u>15.1</u>
<u>New York</u>	<u>17.9</u>	<u>16.1</u>
U.S. Weighted Average	11.2	10.1

So what is at stake? Unless the DOE makes changes to the proposed levels in the NOPR, and opens a new rulemaking for the previously exempted reflector lamps, approximately a quarter³ (5.9 Quads) of the potential energy savings from this rulemaking may be lost. As you will see below, the necessary changes are economically justified for the vast majority of consumers.

As the DOE works to determine appropriately stringent standards for these particular lighting technologies by establishing a Final Rule, NEEP and the undersigned would like the DOE to amend the NOPR document with the following actions:

- 1. Improve the efficiency level chosen for GSFL from TSL 3 to TSL 5.**
- 2. Improve the efficiency level chosen for IRL lamps from TSL 4 to TSL 5.**
- 3. Conduct and complete a separate Rulemaking for previously exempted BR/ER Reflector lamps in an accelerated timeframe.**
- 4. Avoid potential loophole for Modified Spectrum lamps by setting standard at a consistent efficiency level with non-Modified Spectrum lamps.**

Action 1: DOE should improve the proposed efficiency level chosen for GSFL.

For GSFL⁴, DOE proposes TSL 3 primarily because TSL 4 and TSL 5 would all but eliminate T12 lamps (4-foot medium bipin), and in the process force some consumers to retrofit fixtures when their T12 lamps burn out. While this situation will lead to some increase in total installed

¹ Calculated using proportion of national population (2000 US Census) residing in Northeast states (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, and New Jersey).

² Chapter 8, Notice of Proposed Rulemaking, Technical Support Document

³ 14.24 versus 9.65 Quads for the fluorescent/reflector lamp standard. An additional 1.1 Quads would be achieved from the covering of certain exempted reflector lamps. i.e. exempted BR/ER lamps and more equitable treatment of modified spectrum lamps.

⁴ This category includes 4-foot medium bipin, 2-foot U shaped, 8-foot slimline, 8-foot high output, 4 foot miniature bipin standard output, and 4-foot miniature bipin high output.

cost and some negative life cycle cost (LCC) savings, these results would only affect a very small portion of the residential market sector (~9%). For the large majority of consumers, both commercial and residential, the impacts at TSL 5 are economically positive.

As mentioned in the updated NOPR, DOE is wisely considering alternative scenarios for which T12 lamps can be eliminated (through TSL 4 or 5) from their most common commercial uses, while providing residential customers, who would be the most adversely effected by a stricter standard, extended access for their residential-scale needs. In order to address this key roadblock DOE cites in adopting TSL 5, we would be open to the inclusion of some potential short term exemptions

- For commercial sales, DOE could consider implementing a two tiered standard for linear fluorescent lamps that begins with the implementation of TSL level 4 in 2012, with the higher standards of TSL 5 coming online shortly after. This approach would mitigate a few concerns. By slightly extending the transition to TSL 5, manufacturers would have more time to convert manufacturing lines and be able to minimize the impacts on their sales margins that are likely to decrease with the higher standard.
- For residential sales, DOE could consider allowing a short term exemption for the sale of T12 products for residential purposes. A strict labeling program would identify those products for residential use only and ensure that sales went through residential-only channels.

Efficiency programs in the Northeast have been incentivizing high performance T8 lamps (32W) for several years now through the Design Lights Consortium. Going to TSL 5 would begin to lock in some of those market gains achieved by the programs, while pushing the programs towards the lower wattage (28 and 30 W) High Performance T8 lamps and premium T5s lamps.

The bottom line is that TSL 5 provides an additional 4.3 Quads of energy over TSL 3 while providing excellent savings to the large majority of consumers.

Recommendation: Increase GSFL standard from TSL 3 to TSL 5.

Action 2: DOE should improve the proposed efficiency levels for Incandescent Reflector Lamps.

Although DOE chose a solid TSL level for IRL products, based on enhanced halogen IR technology, there are remaining savings opportunities through TSL 5 that should not be missed. DOE has argued that the uncertainty of the technology required to meet TSL 5, along with some issues around proprietary technology, has prevented them from considering the higher level. Recent studies commissioned by the European Council for an Energy Efficient Economy (ECEEE) and conducted by Ecos Consulting found that advancements in coating technology not only make this level feasible, but open the door for even higher levels.

Recommendation: Increase IRL standard from TSL level 4 to 5.

Action 3: Close the Reflector Lamp “Loophole”

A new amendment to this latest Lighting NOPR correctly questions the legality of the reflector lamp exemptions DOE has been promulgating since the original reflector lamp standards were adopted in 1992⁵. By covering these products in the Energy Independence and Securities Act of 2007, Congress effectively brought them into the Federal standards program and, thus, granted DOE the authority, and obligation to regulate them. According to the DOE, one of these exempted BR lamps⁶ accounts for roughly 30 percent of total reflector lamp sales. ACEEE estimates covering the exempted BR lamps would increase savings by another 1.1 quads of electricity and net consumers about \$4 billion in savings over 30 years. Leaving this loophole open would have provided the likely potential for these low cost, less efficient lamps to grow in market share. We support the Department’s strategy of opening a separate rulemaking apart from the other products covered, and fast tracking the process since much of the analytical work has been done during this Rulemaking. It is hoped that the effective dates for these new standards would be closely aligned with the effective dates for the other IRL lamps.

From an efficiency program perspective, highly efficient reflector products do not make up a very large portion of program activity. In this kind of environment, standards offer a unique strategy that can be used to achieve broad savings.

Recommendation: Conduct and complete a separate Rulemaking for previously exempted BR/ER Reflector lamps in an accelerated timeframe.

Action 4: Improve proposed efficiency levels for “Modified Spectrum” Reflector lamps.

Through this NOPR, DOE has maintained that modified-spectrum lamps provide a unique performance-related feature (a different spectrum of light) that standard spectrum lamps do not provide. Therefore, DOE maintains a separate product class for modified spectrum lamps, and has proposed a lower standard (19 percent lower). Special treatment for this “modified spectrum” category only invites the potential for future gaming and the possibility of manufacturers producing more of these products to avoid the stricter standard.

At the very least we argue for a smaller scaling factor. An Ecos Consulting set of test data has indicated a range from 11-18 percent. DOE tested both halogen and HIR lamps (seven lamps total), to determine the 19 percent factor. We recommend that DOE develop it based *only* on HIR lamps, since these lamps are better suited to the design challenge of producing modified spectrum light.

Recommendation: Do not subject modified-spectrum reflector lamps to special treatment. Subject them to the same efficiency standards as the standard spectrum reflector lamps.

⁵Exempted Products; (i) Lamps rated at 50 watts or less that are ER30, BR30, BR40, or ER40 lamps. (ii) Lamps rated at 65 watts that are BR30, BR40, or ER40 lamps. (iii) R20 incandescent reflector lamps rated 45 watts or less.

⁶ 65 W BR30

Conclusion

This important opportunity to save an additional 5.9 Quads of energy should not be lost. By making these highlighted alterations to the NOPR and opening a new rulemaking for the previously exempted reflector lamps, this Final Rule would lock in the most savings ever achieved by a single efficiency standard. Not only would these modifications be cost justified for consumers, but they go a long way in helping to meet the aggressive energy/emission reduction goals that Northeastern states, as well as the country, are determined to achieve.

Thank you once again for the opportunity to comment on this rulemaking.

Sincerely,

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Northeast Energy Efficiency Partnerships

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