



Ms. Brenda Edwards
U.S. Department of Energy
Building Technologies Program
Mailstop EE-2J
1000 Independence Avenue, SW.
Washington, DC 20585-0121

Re: Notice of Proposed Rulemaking for General Service Lamps and Incandescent Reflector Lamps

Docket Number: **EERE-2011-BT-STD-0006**
RIN: **1904-AC43**

Dear Ms. Edwards:

Northeast Energy Efficiency Partnerships (NEEP) and the undersigned organizations thank the Department of Energy for the opportunity to comment on its Notice of Proposed Rulemaking (NOPR) for General Service Fluorescent Lamps (GSFL) and Incandescent Reflector Lamps (IRLs). We represent a broad and diverse group of stakeholders from across the Northeast and Mid-Atlantic region that are very interested in the ultimate result of this rulemaking process, for the Final Rule will have direct impacts to our states, communities and territories. NEEP works collaboratively with a network of stakeholders that span state energy officials, efficiency program administrators, local efficiency advocates and many others to maximize the potential benefits associated with federal appliance standards rulemakings.

While we are strongly supportive of the Department's proposed levels for the GSFL category (TSL 5), we remain concerned that several exempted IRL lamp types continue to perpetuate a loophole that sacrifices significant savings for the category.

By proposing "max-tech" efficiency levels for GSFL, this rule will bring over 2 TWhs of annual electricity reductions to the NEEP region in 2020 and over 100 MWs of capacity reductions (9.8 TWhs and 573 MW nationally). These levels are practical in part because of the very aggressive energy efficiency programs that have been administered throughout our region, and beyond, in recent years and that have heavily promoted the very technologies and efficiency levels that are now proposed as minimum standard levels. However, roughly two-thirds of the savings would be lost if the Department were to weaken the levels of the ubiquitous four-foot medium bi-pin lamps. We urge the Department to maintain the levels for this particular GSFL product category as proposed. These products are now readily available in the market and are cost-effective.

As far as the IRL category, the region remains frustrated by the fact that the "exempted" incandescent reflector lamps (Elliptical Reflector (ER)/bulge-neck Reflector (BR)) remain uncovered. These uncovered IRL categories continue to represent major loopholes to the standards established for the rest of the IRL category, and sacrifice significant savings to the region and country.

The effort to set strong energy efficiency standards for GSFL/IRL is of paramount importance for the Northeast/Mid-Atlantic states for a number of important reasons: we face some of the most aggressive energy reduction use goals in the country and are home to consumers who live with energy costs that surpass most of the nation and that unnecessarily burden the economy. This rulemaking also comes at a time when our region's states - the New England states in particular - are dealing with a new reality



of winter time energy price spikes due to natural gas and electric transmissions capacity constraints. Maximizing energy efficiency savings is of paramount concern to this region, particularly as much more costly and environmentally damaging solutions - such as expanded gas pipelines - are being debated. Additionally, new air regulations associated with the Environmental Protection Agency's 111d rules will demand decreases in carbon pollution, and efficiency is seen as a central pathway to achieve these new goals.

Strong federal energy efficiency standards for these products are an important piece of a larger strategy to cost effectively reduce consumption of electricity sharply, lower peak electricity demand (and need for natural gas generation), significantly reduce pollution and create new economic opportunities. As states consider bringing new sources of energy to the region, energy efficiency standards are an available mechanism to help them defer as much new capacity infrastructure as possible and meet new air regulations.

NEEP and the region come to this rulemaking with a strong background of experience, having engaged this rulemaking since its launch in 2011. In addition, the region brings years of important programmatic experience working with both residential and commercial lighting incentive programs.

The undersigned stakeholders offers a number of additional comments that we hope the Department will consider as it develops their Final Rule for the GSFL/IRL product categories.

General Service Fluorescent lamps

- **Proposed efficiency levels satisfy the Department's charge to adopt standards that represent the maximum improvement in energy efficiency that is technologically feasible and economically justified, and would result in the significant conservation of energy.**
- **High efficacy lamps do not impede control capabilities**
 - Manufacturer representatives commented during DOE's May 1 public workshop that adding control functionality to a fluorescent fixture (lamp/ballast) was the next frontier of efficiency for this technology. We strongly support the evolution of controllable lamps. The proposed TSL 5 efficacy level allows for four-foot full-wattage "high-lumen" T8 lamps that have the same control and dimming performance as lower efficacy lamps eliminated by the standard.
- **DOE must step up enforcement activities related to currently exempted high CRI (>87 CRI) GSFL lamps that are being "designed and marketed" for purposes consistent with general service fluorescent lamps.**
 - A number of high CRI GSFLs are currently being marketed as replacements for GSFL lamps, which is in clear conflict with the definition of GSFLs¹. The definition identifies

¹ *General service fluorescent lamp* means any fluorescent lamp which can be used to satisfy the majority of fluorescent lighting applications, but does not include any lamp designed and marketed for the following non-general application:

- (1) Fluorescent lamps designed to promote plant growth;
- (2) Fluorescent lamps specifically designed for cold temperature applications;
- (3) Colored fluorescent lamps;
- (4) Impact-resistant fluorescent lamps;
- (5) Reflectorized or aperture lamps;
- (6) Fluorescent lamps designed for use in reprographic equipment;
- (7) Lamps primarily designed to produce radiation in the ultra-violet region of the spectrum; and



a number of exemptions for lamps providing specialized utility. By allowing high CRI lamps to be exempted from the standards, yet be marketed and sold to consumers as a GSFL raises serious concerns about loopholes to the current and future standards. We suggest that the Department either require high CRI lamps marketed this way to meet the applicable standards or utilize its legal authority to restrict those products from being marketed as replacements for general service fluorescent lamps. This action is crucial to prevent these this loophole from growing.

- The lack of enforcement of high CRI exemption sacrificed projected energy savings potential put forth by the DOE during the previous rulemaking. The market responded to the last rulemaking by increased offerings of high CRI T12 lamps. These products offer no energy savings - and in some cases actually increase usage since they are full 40 watt lamps.
- **DOE appropriately weighed variability of rare earth phosphor prices into analysis**
 - The availability and cost of rare earth materials, essential in the manufacture of fluorescent lamps, have improved in the last few years. According to DOE, the costs of these materials may continue to fluctuate going forward. Through extensive sensitivity analysis, DOE has tentatively concluded that the current Candidate Standard Levels are likely cost effective even with potential variability in rare earth phosphor prices.²
- **The Department's Manufacturer Impact Analysis should account for likely growth manufacturers are experiencing with related lighting technologies (i.e. LED lighting)**
 - Emerging technologies such as LED lighting are projected to shrink the market for fluorescent lighting throughout the years included in the analysis. Instead of simply accounting for the lost revenues associated with this decrease in GSFL sales, we suggest that the Department also factor in the benefits those same manufacturers are gaining in the growing markets related to LED and other technologies.

Incandescent Reflector Lamps

- **DOE should have included additional Efficiency Levels (EL) for IRLs.**
 - DOE is required to establish an EL that represents the maximum technologically feasible level and typically evaluates the maximum commercially available level, which may be lower than the maximum technologically feasible. Representatives from California Investor-Owned Utilities (IOUs) explained during the public workshop that DOE's own certification database includes products with efficiencies well beyond the one and only EL they have established. While we are reserving judgment for their appropriateness for standard levels, we encourage DOE to reconsider including them in the analysis.

(8) Lamps with a Color Rendering Index of 87 or greater.

² Appendix_7B_Rare_Earth_Phosphor_Availability_and_Pricing



General comments

- **We strongly support the Department's effort to quantify the economic benefits of demand reductions for this rulemaking. The Department should continue to quantify the economic benefits of demand reductions in all future rulemakings.**
 - Demand reductions in the Northeast/Mid-Atlantic associated with higher efficiency standards for these products will provide important alleviation to capacity constraints, an important challenge faced by much of the region. The Department has estimated that the Present Value of Reduced Costs of Electricity Generation Capacity Addition Due to GSFL Standards at the proposed levels would be \$410 Million nationally, \$80 Million regionally.
- **The regional stakeholders appreciate the Department maintaining its schedule to complete this rulemaking by the fall of 2014.**
 - DOE is under statutory obligation under the Energy Policy Act of 1992 to complete two separate revisions to these standards. The first review was completed in 2009. Based on the lead times in the statute, the final rule for the second review is due five years after completing the initial review, and, is therefore, required in 2014.

In order to develop a strong and informed Final Rule that will deliver maximum cost effective savings to the country and ultimately consumers, the issues we have identified above must be considered and addressed. The Northeast/Mid-Atlantic stakeholders remain committed to assisting the Department in their effort to develop such a rule. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Susan E. Coakley".

Susan E. Coakley, Executive Director

Supporting Organizations;

**Diane Duva, Office Director
Connecticut Department of Energy and Environmental Protection (DEEP)**

**Larry Chretien, Executive Director
Energy Consumers Alliance of New England
{dba Mass Energy Consumers Alliance in Mass. and People's Power & Light in RI}**

**Michael McAteer, Director, Customer & Business Strategy --Rhode Island
National Grid**

**Marion Gold, Commissioner
Rhode Island Office of Energy Resources**

**Asa Hopkins, Director of Energy Policy and Planning
Vermont Public Service Department**