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 Fluorescent Lamp Ballasts

Docket Number: **EE-2007-BT-STD-0016**
RIN: **1904-AB50**

Dear Ms. Edwards:

Thank you for the opportunity to comment on the recently released Notice of Proposed Rulemaking (NOPR) for Fluorescent Lamp Ballasts. Northeast Energy Efficiency Partnerships (NEEP) and the undersigned organizations raise several important issues that we urge the Department to consider before publishing a final rule.

The effort to set strong energy efficiency standards for fluorescent lamp ballasts is of paramount importance for Northeast states, as they 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. Strong energy efficiency standards for fluorescent ballasts will sharply reduce consumption of electricity, lower peak electricity demand, significantly reduce pollution and create new economic opportunities.

NEEP and the region come to this rulemaking with a strong background of experience, having engaged in this rulemaking from its beginning in 2008, in addition to having years of programmatic experience working with fluorescent ballast incentive programs.

We strongly support the efficiency levels of TSL 3 included in the NOPR. While we are encouraged by the strong ("max-tech") TSL level proposed by the Department and the impressive benefits associated with those standard levels, we are aware that concerns have been raised about ballast product testing and compliance reporting. In order for these standards to achieve the proposed savings estimates, the standard must be based on performance levels that can be measured accurately and on a consistent and repeatable basis. We encourage the Department to explore these issues in an expedited manner.

Our recommendations, and logic, are provided below.

In addition to the remarks below, our coalition wholly supports the comments submitted to this docket by the Appliance Standards Awareness Project (ASAP). While some of the issues we discuss echo the points raised by ASAP, we are eager to add a uniquely regional perspective.

- **First and foremost, ballast performance testing data from DOE sources and NEMA sources should be reconciled.**
    - As was presented during the public workshop, members of the industry trade association, National Electrical Manufacturers Association (NEMA), conducted ballast testing that yielded results that, on average, differed consistently from the

performance testing results secured by the Department. We urge the Department to work with NEMA to reconcile the differences in test data.
  - We are encouraged by the initial efforts that parties have made to reconcile testing results as DOE has requested and received SKU-specific data. It will be incumbent on NEMA members to be forthcoming with the underlying testing results that make up the various testing metrics.
  - Test reporting accuracy and replicability are crucial issues if we want a trustworthy product certification process.

- **Industry concerns about possible market collapse under TSL 3 are based on these discrepancies.**
  - Based on manufacturers' internal testing using the new BLE metric, very low rates of current "NEMA Premium" ballasts would qualify at the levels described in TSL 3, and according to NEMA, this would result in a massive shortage of compliant products. This would, allegedly, lead to necessary R&D expenditures and retooling of existing manufacturing lines, costs that would eat away at resources to dedicate to R&D currently being focused on next generation technologies.
  - DOE's test data, however, suggests that existing "Premium" ballasts actually qualify at much higher rates.
  - We support DOE's intent to set efficiency levels such that a select subset of existing "NEMA premium" ballasts would qualify at the TSL 3 efficiency levels. Assuming the Department can confirm that these products can in fact qualify under the TSL 3 specification, the market will not be faced with the situation where the shortage of qualifying products leads to a major shift in R&D resources.

- **If this data cannot be reconciled in a timely manner and to the Department's satisfaction, we would support an effort to seek a brief final rule deadline extension. Although we take the legal deadlines established by the consent decree extremely seriously, this may represent an exceptional case.**

- **Assuming the Department's exploration of the testing result discrepancies does not find cause to reassess the proposed specifications, the Northeast supports, and would benefit greatly from, the proposed levels prescribed in TSL 3. TSL 3 represents more than 500 million kWh of additional electricity savings compared to TSL 2.**
  - Appendix A contains State-level savings projections for electricity, demand and economics specific to Northeastern states.
    i. TSL 3 represents 1.7 Billion kWh of electricity savings (cumulatively) by 2020 to the Northeast region under the conservative Emerging technologies scenario (2.0 Billion kWh under the Existing technologies scenario).
    ii. Range of $1.75-3.56 Billion in Net Present Value savings to Region (depending on 3% or 7% discount rate).
    iii. TSL 3 represents an additional 210 MW in reductions to the necessary generating capacity for the Northeast region (by 2020).
  - The region supports the role TSL 3 would play in establishing these high levels of ballast efficiency as "business as usual".
  - As the fluorescent ballast market has evolved from a prevalence of magnetic ballasts to electronic ballasts, the time has rightly come for the broad expansion reflected by the scope of coverage of this rulemaking. TSL 3 would lock in gains that efficiency programs have helped achieve over the years, including the Region's Commercial Lighting Initiative effort to improve distributor stocking. This activity helped lay the groundwork for this standard by building demand/supply for highly efficient electronic

ballasts. This rulemaking represents an important milestone in the market transformation of fluorescent ballasts.
  - Locking in strong efficiency levels for ballasts would complement the strong fluorescent lamp standards that are set to take effect next year.

- **The additional 210 MW of demand reductions in the Northeast associated with TSL 3 compared to TSL 2 (664 MW versus 454 MW by 2020) will provide important alleviation to capacity constraints, an important challenge faced by much of the region. The Department should quantify the economic benefits of demand reductions for this rulemaking. The Department should also quantify the economic benefits of demand reductions in all future rulemakings.**

  While the Department has projected demand reductions for the various TSL levels in its analysis, we urge the Department to quantify those reductions in economic terms. Synapse Energy Economics completed a study, "Avoided energy supply costs in New England; 2009 Report," which demonstrates that efficiency measures which lead to demand reductions provide a number of benefits, including;

  > "Avoided electric capacity costs due to the reduction in the annual quantity of electric capacity and/or demand reduction that ISO-NE requires load serving entities (LSEs) to acquire from the Forward Capacity Market (FCM) to ensure an adequate quantity of generation during hours of peak demand."

  Section 6 of the report provides forecasts of avoided capacity cost resulting from energy efficiency measures in New England. For example, it is estimated that a measure that achieves one kW reduction in capacity would be worth $67 per kw-year in 2010 and $32 per kw-year out to 2024. These values are based on recent and forecasted ISO-NE Forward Capacity Market auction prices. We urge the department to utilize this report as a resource to develop the economic benefits for the products in this rulemaking, and in all other standards rulemakings.

- **The time to set aggressive ballast standards is now.**
  - In the time between this rulemaking and the next revision to this standard, Fluorescent lamp fixture technology may be significantly displaced by other next generation technologies (i.e. LED fixtures). The Department should certainly not "leave savings on the table" with the mentality that they will be available in comparable amounts in the future.

- **The new Ballast Luminous Efficiency (BLE) metric successfully simplifies testing requirements and enables the vast consolidation of product classes.**

- **Efficiency programs throughout the Northeast have participated for years in a variety of incentive initiatives (See current offerings at CEE Program Summary) with the goal of driving high efficiency ballasts into the market and achieving cost effective energy savings. Standard levels prescribed in TSL 3 will likely displace these technology-based offerings, unlocking the next generation of program offerings, primarily in the area of dimming ballasts and ballasts capable of smarter lamp control (occupancy sensors, daylight sensors, etc).**
  - While high efficiency electronic ballasts may become commoditized by this standard, there will remain important opportunities for manufacturers and program administrators to differentiate ballast products. That differentiation will likely be in

the area of dimming and controls, where the incremental energy savings may dwarf those of existing efficiency upgrades.
  - NEMA commented during the Workshop that adding control functionality to a fluorescent ballast/fixture was the next frontier of efficiency for this technology.

- **Because many Northeast states have aggressive energy savings goals in the near future, strong federal minimum standards on fluorescent lamp ballasts can provide a smart, zero-cost (minimal-cost to Federal government) strategy to help them achieve those goals.**
  - For example, included in Massachusetts' Global Warming Solutions Act of 2008, are emissions reduction goals (25% reduction from 1990 levels by 2020) that are driving a need to dramatically cut energy usage. Their Clean Energy and Climate Plan for 2020 describes strategies to achieve these energy use reductions.

- **Due to very high energy costs in the Northeast, the cost effectiveness (Life Cycle Cost analysis and payback periods) of a more aggressive standard becomes even more attractive for businesses of this region. Depressed demand is also shown to drive energy prices down, a benefit that affects participants (fluorescent ballast purchasers) and non-participants due to general price decreases.**
  - 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) 3. Northeastern businesses and consumers face some of the highest electricity prices (up to 50 percent higher than the weighted national average) in the country, only strengthening our region's call for strong fluorescent lamp ballast standards.

Electricity price comparison[1]

Region	Commercial Prices (cents/kWh)
New England Average	14.0
New York	15.4
Mid-Atlantic Average	11.8
U.S. Weighted Average	10.0

We urge the Department to seriously consider the issues we have raised. Assuming the Department's review of industry test data does not warrant a significant reevaluation of their own testing data/results, we urge the Department to maintain the current proposal of TSL 3 in the Final Rule. Thank you for your consideration.

Sincerely,

Susan E. Coakley, Executive Director

[1] Spreadsheet with historical average monthly retail prices by type of customer by State, February, 2011, U.S. Energy Information Agency

Supporting Organizations;

Tom Coughlin, Program Manager, Energy Products
National Grid

Joseph Swift, Operations Supervisor, Conservation & Load Management Program
Northeast Utilities

Patrick McDonnell, Director of Conservation and Load Management
United Illuminating

John Ruckes, Energy Management Unit
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Cindy Jacobs, Utilities Principal Finance Specialist
Connecticut Department of Public Utility Control

TJ (Walter) Poor, Energy Programs Specialist
Vermont Department of Public Service

Cliff Majersik, Executive Director
Institute for Market Transformation

Daniel L. Sosland, Executive Director
Environment Northeast

Charlie Harak, Attorney
National Consumer Law Center, on behalf of its low-income clients.

Rob Sargent, Energy Program Director
Environment America

Appendix A
State-level Savings Projections[2]

		TSL 3-State-level Energy savings-cumulative by 2020 (kWh)	TSL 2-State-level Energy savings-cumulative by 2020 (kWh)	TSL 3-State-level Demand savings-by 2020 (MW)	TSL 2-State-level Demand savings-by 2020 (MW)	TSL 3- State-level Net Present Value ($Million)	TSL 2- State-level Net Present Value ($Million)
Maine		39,891,733	27,265,901	15.1	10.3	81	40
New Hampshire		36,535,808	24,972,135	13.8	9.4	74	37
Vermont		18,524,329	12,661,333	7.0	4.8	38	19
Massachusetts		188,110,074	128,572,772	71.1	48.6	382	188
Rhode Island		31,441,029	21,489,866	11.9	8.1	64	31
Connecticut		100,204,307	68,489,397	37.9	25.9	203	100
New York		543,246,571	371,307,693	205.4	140.5	1,103	544
New Jersey		235,920,493	161,251,076	89.2	61.0	479	236
Pennsylvania		367,740,114	251,349,462	139.0	95.1	747	368
Delaware		22,997,099	15,718,460	8.7	5.9	47	23
Maryland		152,489,189	104,225,985	57.7	39.4	310	153
Washington DC		19,117,393	13,066,691	7.2	4.9	39	19
NEEP Region		**1,756,218,138**	**1,200,370,772**	**664.0**	**454.2**	**3,567**	**1,758**

[2] Calculations based on National Impact Analysis (Chapter 11) of the Departments Technical Support Document. Proportions of state households to U.S. households were used to compute state level savings, from U.S. Census; State and County Quickfacts . The Department's more conservative emerging technologies scenario was used.