



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

Re: Preliminary Technical Support Document for Clothes Dryers and Room Air Conditioners

Docket Number: **EERE-2007-BT-STD-0010**
RIN: **1904-AA89**

Dear Ms. Edwards:

Thank you for the opportunity to comment on the recently released Preliminary Technical Support Document for Clothes Dryers and Room Air Conditioners. Northeast Energy Efficiency Partnerships (NEEP) strongly encourages the Department of Energy (DOE) to consider a number of issues as a means of improving the analytical process of developing its Notice of Proposed Rulemaking. The effort to set strong energy efficiency standards for these products is of paramount importance for Northeastern states. The region is home to several of the country's energy efficiency leaders, including several states who have set some of the most aggressive energy use reduction goals; is home to an electrical grid that faces serious capacity challenges; and is home to consumers who live with energy costs that surpass most of the nation, costs that unnecessarily drain the local economies. Strong energy efficiency standards on clothes dryers and room air conditioners offer the region, and nation, a smart, affordable strategy to sharply reduce consumption of electricity and natural gas, directly impact peak electricity demand, significantly reduce pollution and create new economic opportunities.

We view this as a crucial stage in the Department's process to set revised standard levels. The Department's initial analysis of the potential benefits to states and consumers, as it is currently constituted, does not currently support the appropriate improvements that are achievable and cost effective. In order for these standards to realize the stated goal of affecting the maximum energy savings that is economically achievable, NEEP would like to address a number of issues that either threaten this goal or offer opportunities to attain superior savings.

Issues relevant to both products

1. Importance of appropriately valuing demand reductions due to minimum efficiency standards.

The demand reductions achieved by these updated standards will provide important alleviation to capacity constraints, an important challenge faced by much of the Northeast. While the Department has projected demand reductions for given standards in previous analysis, we urge the Department to begin quantifying those reductions in financial terms. The Avoided-Energy-Supply-Component (AESC) Study Group contracted Synapse to develop the study, "Avoided energy supply costs in New England; 2009 Report" (Attached). According to the report, efficiency measures that enable energy use/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 use this report as a resource to help develop these sorts of financial quantifications for the products in this rulemaking, and in all other standards rulemakings.

- 2. 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 residents of this region.

Greater energy efficiency translates directly to lifetime cost savings which highly depend on the price of that energy. 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 standards.

Electricity price comparison¹

Region	Residential Prices (cents/kWh)
New England	17.3
New York	19.2
Mid-Atlantic	15.6
U.S. Weighted Average	11.8

- 3. Because many Northeast states have aggressive energy savings goals in the near to mid range future, strong federal minimum standards on clothes dryers and room air conditioners can provide a smart, minimal-cost strategy to help them in achieving such goals.

Issues related to Room Air Conditioners

- 1. The Northeast has a unique need to reduce peak demand (kW) on the electrical grid. Since Room air conditioners have a relatively high coincidence with seasonal peak hours, improvements in the minimum efficiency standards measured by the Integrated Energy Efficiency Ratio (IEER) are of keen importance.

[The Coincidence Factor Study, Residential Room Air Conditioners, June 2008](#), prepared for the New England Evaluation and State Program Working Group, illustrates the field-observed probability of room air conditioner operation coincident to seasonal summer peak periods as defined in the Forward Capacity Market. Most of the expensive outcomes of distinct summer peaks are caused by this small number of hours during which room air conditioners are so commonly operating.

¹ Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State, October, 2009, U.S. Energy Information Agency (http://www.eia.doe.gov/cneaf/electricity/epm/table5_3.html)



2. **Sales for Room AC have dramatically climbed since the last standard in 2000 and are expected to remain at these higher levels through 2030.**
As prices have dropped by over 30% in real dollars over the period 1994-2002 (trend continues) and variety of retail outlets has expanded, national Room AC sales are projected to climb from over 6 million in 2000 to over 9 million in 2010. Over a quarter of the units sold in 2010 will be new purchases (versus replacements) and will represent new load, and will most likely operate at peak periods. It will be crucial to minimize this expensive, additional load as much as possible.
3. **Efficiency programs throughout the Northeast have helped to develop the market for higher efficiency products by offering incentive programs that promote ENERGY STAR qualified and beyond-ENERGY STAR Room Air Conditioners.**
 - a. Consumer rebates for ENERGY STAR qualified Room air conditioners have helped to build market share through rate-payer-funded energy efficiency programs. They have helped to drive market penetration for these ENERGY STAR qualified units to 43 percent in 2008² (50 percent in 2007). Several programs have required beyond ENERGY STAR (CEE tiers) level units for incentives, driving even more aggressive improvements in efficiency.
 - b. See attached "NE ENERGY STAR Appliance Fact Sheet 2009" for details on incentives offered for ENERGY STAR qualified room air conditioners in the Northeast.

Issues related to Clothes Dryers

1. **The Departments' Life Cycle Cost (LCC) and Payback Period (PBP) analysis are not accurate reflections of cost effectiveness or energy saving opportunities because the current test procedure does not properly measure differences in clothes dryer performance. The Northeast would like to highlight a number of findings from a recent report developed by Ecos for Natural Resources Defense Council, "Residential Clothes Dryers; An investigation of energy efficiency test procedures and savings opportunities".**
 - a. The current clothes dryer test procedure allows dryers with a moisture sensor to receive an automatic, fixed energy savings credit on the test procedure, rather than measuring its actual effectiveness at stopping the drying cycle when the load is dry. We would prefer a test method that more accurately measures the performance of the sensor as there is a wide range in effectiveness. We do not believe that "the test procedure credits for automatic termination are appropriate". The procedure *assumes* all dryers have equally effective controls systems, rather than measuring the actual efficacy of their controls.
 - b. Based on testing, Ecos found significant differences in energy consumption (20-30 percent) among dryers with similar efficiencies based on the existing test procedure.
2. **The Department should work to better quantify the impacts vented dryer operation has on the conditioned space where these units function.**
Vented dryers often cause pressure gradient-induced infiltration into the home. It remains unclear exactly what kinds of impacts this infiltration has on heating and cooling loads, yet the NRDC suggest they are likely significant.
3. **Like room air conditioners, clothes dryers exact heavy tolls on the grid, capacity-wise.**
Clothes dryers can often be the largest load in the household at approximately 5 kW. As

² ENERGY STAR 2008 Sales Data- National, State, and Regional;
http://www.energystar.gov/index.cfm?c=manuf_res.pt_appliances



mentioned in the first section, reductions in demand due to a revised clothes dryer standard must be adequately quantified in financial terms.

At this point in the rulemaking, we would like to communicate our strong hope that the Department earnestly consider the issues raised here. By carefully addressing these areas of concern, we believe that the DOE will be in better position to develop a more accurate, informed proposed rule. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Susan E. Coakley". The signature is written in a cursive style.

Susan E. Coakley, Executive Director

Supporting Organizations;

Dan L. Sosland, Executive Director
Environment Northeast

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