

Northeast Energy Efficiency Partnerships, Inc.



Energy Efficiency Standards: A Boon for Connecticut

Energy efficiency programs are a low-cost, high-benefit way for Connecticut to meet its ever-growing energy needs. Federal and state energy efficiency programs have saved Connecticut ratepayers hundreds of millions of dollars over the last few decades. However, technological progress has provided new opportunities for energy savings that outdate existing government policy. This report, *Energy Efficiency Standards: A Low-Cost, High-Leverage Policy For Northeast States*, by the Northeast Energy Efficiency Partnerships, Inc., provides information that will allow Connecticut to update appliance efficiency standards for 8 commonly used devices. Energy efficiency standards for these products will:

- **Provide economic benefits to individual consumers, the state and the region.**
- **Improve the reliability of the electricity grid.**
- **Mitigate causes and effects of global climate change.**
- **Improve air and water quality by reducing the emissions of pollutants that form smog and acid rain.**

Energy Efficiency Standards for these 8 Products would Provide Economic, Reliability and Environmental Benefits to Connecticut

1. Torchiere Lighting
2. Large Packaged HVAC
3. Dry-Type Building Transformers
4. Exit Signs
5. Traffic Signals
6. Unit and Duct Heaters
7. Commercial Clothes Washers
8. Comm. Refrigerators and Freezers/ Beverage Merchandisers

Energy Efficiency Standards Provide Benefits to Consumers:

Energy efficiency standards will save Connecticut ratepayers hundreds of millions of dollars over the next two decades. Nearly all of the appliances outlined in this document pay for themselves through energy savings in less than two years. In fact, for every dollar spent on increased appliance efficiency, the ratepayer will save between \$2 and \$10 in energy costs. These savings will boost the economy as consumers find themselves with more disposable income to spend. Standards particularly benefit low-income consumers who generally spend a higher percentage of their income on electricity bills. Specifically:

- Raising standards will reduce annual energy consumption by over 430 GWh by 2020 (equivalent to the energy needed by 1.5 % of the state's households in 2000) resulting in net retail electricity bill savings of \$380 Million dollars through 2020.
- A 1997 study by the American Council on an Energy Efficient Economy (ACEEE) of New York, Pennsylvania and New Jersey found that spending less money on utilities increased the states' gross state product, wages and salaries and reduced unemployment.

Energy Efficiency Standards Improve the Reliability of the Electricity Grid:

Connecticut's increasing energy demand threatens to critically strain our already overburdened transmission system. Connecticut may someday need to expand its transmission system, but we can put off such a costly and politically contentious operation by slowing the increase of our energy demand. Lower demand helps alleviate the electricity congestion problems experienced in Southwest Connecticut. Because electricity prices increase dramatically during peak demand times, reducing the electrical demand during these times will save consumers and the state hundreds of millions of dollars.

- By 2010, enacting the proposed energy efficiency standards will shave roughly 65 MW of peak demand, equivalent to the needs of about 65,000 households.
- By 2020, the proposed energy efficiency standards will reduce peak demand by over 125 MW, the equivalent to almost 2% of the state's generating capacity.

Energy Efficiency Standards Reduce Emissions of Carbon Dioxide:

Fossil-fuel power plants are one of the main sources of carbon dioxide emissions. These emissions contribute to global climate change. Rising global temperatures will have adverse consequences for Connecticut, such as more 90-degree days across the summer increasing the risk of heat-related illnesses. Hotter summers also mean more high smog days that trigger asthma attacks, bronchitis and other respiratory ailments. In 2002, the Northeast experienced 90-degree days with accompanying high ozone levels well into September. A rising sea level will bring dramatic changes to the state.

- Energy efficiency standards would reduce annual carbon emission from Connecticut by over 65,000 metric tons, equivalent to removing almost 52,000 cars off the road.

Energy Efficiency Standards Improve Air Quality:

Reducing the need to run fossil-fuel power plants, efficiency standards also improve air quality by reducing emissions of smog-causing nitrogen oxides and sulfur dioxide, which causes acid rain. Exposure to smog triggers asthma attacks and causes bronchitis as well as other respiratory ailments. Acid rain has damaged lakes and forests in Connecticut for decades.

- Connecticut can avoid emitting 75 metric tons of smog forming nitrogen oxides annually or almost 2.5% of the nitrogen oxides generated at the Middletown plant in 2000.
- Connecticut can avoid emitting 215 metric tons of acid rain forming sulfur dioxide annually or 5% of the sulfur dioxide generated at the Middletown plant in 2000.