

For 30 years, ACEEE's energy efficiency experts have helped to shape our nation's energy efficiency research and policy agenda. We achieve our success through...

- conducting in-depth technical & policy analyses
- advising policymakers, energy professionals & utilities
- working collaboratively with businesses & other organizations
- organizing conferences
- publishing conference proceedings and reports
- educating consumers & businesses

Collaboration is key to ACEEE's success. We work with organizations around the globe including federal, state, and local government agencies, utilities, research institutions, businesses, and public interest groups. Our focus is on 6 primary program areas:

- Energy Policy
- Economic Analysis
- Buildings, Appliances, & Equipment
- Utilities
- Industry & Agriculture
- Transportation

ACEEE is leading the development of technology and policy solutions that ensure the security of our energy systems. As energy leaders, we promote the vibrancy of the American economy and the sustainability of the environment world-wide.

Advanced Appliance and Equipment Efficiency Standards

ACEEE RECOMMENDATIONS

Congress should...

- Enact new standards jointly recommended by industry and efficiency advocates for home appliances, residential central air conditioners, furnaces, outdoor lighting fixtures, portable lighting fixtures and other products.
- Enact reforms recommended by efficiency advocates and industry groups for the federal standards program which will strengthen Department of Energy (DOE) decision-making concerning new standards, enable better data collection on efficiency performance, and encourage DOE to consider potential smart grid benefits of new standards, among other reforms.
- Ensure that DOE abides by its schedule to catch up on all overdue standards and to meet all new statutory deadlines. DOE's current rate of rulemaking activity is unprecedented. By August 2009, the Obama Administration had already adopted several new standards: altogether at least twenty-six are legally due for completion during the current presidential term.
- Provide adequate budget for DOE to effectively develop and enforce new standards.

The Department of Energy should...

- Continue to prioritize current rulemakings to set appropriate updated standards.
- Initiate new rulemakings that offer opportunities for large additional savings, such as televisions, certain reflector lamps, transformers and furnace fans.
- Strengthen efforts to enforce federal appliance standards.
- Initiate a broad-based effort to update and modernize the test methods which underlie federal efficiency standards and the Energy Star program.

THE ISSUE

Appliances, equipment and lighting account for 85-90% of residential and over 90% of commercial energy use.¹ Appliance and equipment efficiency standards require products such as refrigerators, electric motors, and air conditioners to meet specific minimum efficiency requirements thereby reducing energy use and consequently saving purchasers money while improving the environment. Standards prohibit the production and sale of appliances and other energy-consuming products less efficient than the minimum requirements, causing manufacturers to focus on how to incorporate energy-efficient technologies into their mainstream products at minimum cost. In doing so, standards provide all consumers with a minimum level of efficiency performance, making energy-efficient products more affordable and more widely available.

SUMMARY

Appliance and equipment efficiency standards have been among the most successful government policies for improving energy efficiency in the United States. Historically, states have been the testing ground for appliance standards. Successful implementation at the state-level has often been followed by manufacturers and efficiency supporters negotiating consensus standards that are then recommended to Congress for adoption. By law, DOE must periodically review all standards created by Congress to determine if they should be strengthened to reflect technology and market changes.

The success of appliance and equipment efficiency standards is clear: for example, a typical new refrigerator today uses 70% less energy than a typical refrigerator sold in the early 1970s. Moreover,

ACEEE estimates that in 2020, existing standards enacted up to and including products in the Energy Independence and Security Act (EISA) of 2007 will:

- Save about 6 quadrillion BTUs of energy – accounting for almost 6% of projected national energy use in 2020;
- Save about 500 billion kWh – or almost 12% of projected electricity consumption in 2020;
- Reduce peak load by about 153,000 MW – equal to over 15% of projected U.S. peak capacity in 2020, and;
- Cut annual carbon dioxide emissions by 386 million metric tons – equivalent to 154 average coal-fired power plants.ⁱⁱ

Developing and updating appliance and equipment efficiency standards is a continuous process. For example, EISA 2007 contained new standards for 10 products (including light bulbs, clothes washers, dishwashers, and electric motors). Meanwhile, the list of products for which the DOE is required to develop new standards by January 2013 is comprised predominantly of products with existing standards in need of updating. Successful standards programs, however, require good testing methods – ones that are unambiguous, easy to use, and relevant to how products are used. The U.S. needs greater investment in revising testing methods and standards which encourage new approaches (e.g., heat pump and solar water heaters), and to assure that standards are based upon typical actual use patterns.

APPLIANCE STANDARDS AWARENESS PROJECT (ASAP)* CONTACTS

Andrew DeLaski
adelaski@standardsasap.org
617-363-9470

ACEEE CONTACTS

Jennifer Amann
jamann@aceee.org
202-507-4015

Harvey Sachs
hsachs@aceee.org
202-507-4014

* The Appliance Standards Awareness Project (ASAP) is dedicated to increasing awareness of and support for appliance and equipment efficiency standards. Founded in 1999 by the American Council for an Energy-Efficient Economy (ACEEE), the Alliance to Save Energy, the Energy Foundation, and the Natural Resources Defense Council, ASAP is led by a steering committee that includes representatives from the environmental community, consumer groups, utilities and state government. ASAP provides advice and technical support to parties interested in advancing state standards.

ⁱ http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set19/2003pdf/e1-e11.pdf

ⁱⁱ This estimate assumes an average coal power plant with a generation capacity of 400 MW, operating at 70% capacity over the course of one year (8,760 hours). Coal power plants on average emit just over one metric ton of carbon dioxide (1.02 MT/MWh, or 2249 lbs/MWh) per MWh generated.