

# ENERGY EFFICIENCY STANDARDS OF APPLIANCES

A Policy Brief by the Center for State Innovation

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## DISCUSSION

The appliances we all use—from computers to toasters—often fail to meet basic energy efficiency standards, even as energy prices continue to rise. In recent years, fuel production has not kept pace with consumer demand, leading to steadily increasing fuel costs, according to the Energy Information Administration.

A modest reduction in energy consumption may yield significant energy savings. According to a report by ACEEE, a 2-4% decrease in natural gas energy consumption could lead to a 20% reduction in natural gas prices.

States have the power to protect their consumers and businesses against these “energy-wasting” appliances. State executives have at their disposal a variety of tools that can ensure that the appliances sold in their states meet energy efficiency standards. In addition to lowering energy consumption itself, such state standards would lower the operating cost that taxpayers pay for the appliances that local and state government purchase, hold down appliance operating costs for both household and corporate consumers, and reduce pollution.

Setting energy efficiency standards for household and commercial appliances is one of the most successful means of reducing energy use. States have taken the lead on setting appliance standards, spurring additional federal regulations and saving millions of dollars and kilowatt hours in the process. For example, the California Energy Commission estimates that California’s appliance standards have saved the state at least \$3 billion per year since 1978, and have cut per capita energy use by one-third. According to a report by the Apollo Alliance, implementing efficiency standards for as few as ten products can reduce statewide energy use by 5 percent.

In addition to saving consumers and businesses money via reduced energy use, and improving electric system reliability, setting appliance standards improves public health by reducing power plant pollution. Another benefit is the creation of jobs in the manufacturing, installation, and maintenance of energy-efficient products. Energy efficiency also stimulates local economies more broadly: many of the dollars that households and firms don’t spend on extra energy are likely to be spent in local stores or invested in local businesses.

While we have become accustomed to thinking that standards for consumer products in general, and appliances in particular, must be set in Washington, D.C. on a uniform national basis, the fact is that the Constitution’s Interstate Commerce Clause does not preclude individual states from setting energy efficiency standards in a variety of areas.

For example, states can require that products sold in the state, and that are not governed by federal efficiency standards, meet the state’s own standards. States can also use their procurement powers to insist that the appliances that state and local governments themselves purchase meet more rigorous energy efficiency standards. This will affect how appliances are made for all consumers. In addition, states have the ability to condition some of the benefits they confer on private organizations—payments to state contractors, grants to private agencies, loans to developers, even

## About CSI

The Center for State Innovation (CSI) believes every state can achieve shared prosperity, environmental sustainability, and efficient democratic government. We offer evidence-based, outcome-measured, fiscally prudent strategies for doing so.

A non-partisan, not-for-profit institution, CSI provides many types of assistance to state executives interested in implementing progressive policies.

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tax breaks for private entities—on those private organizations' agreement to purchase appliances that meet the same rigorous energy efficiency standards.

## COSTS

Appliance efficiency standards are an extremely low-cost policy for a state to implement to reduce energy waste. A joint report by the Appliance Standards Awareness Project (ASAP) and the American Council for an Energy-Efficient Economy (ACEEE) concludes that the benefits of appliance standards are more than 2,500 times greater than program costs. Costs for states to develop and implement standards have proven to be much lower than federal costs, with higher benefit-cost ratios as a result. Estimates for states that have implemented some kind of standards program have ranged from zero to \$70,000.

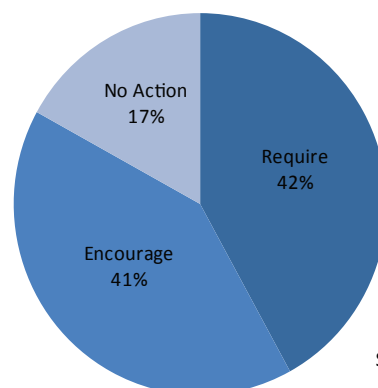
The cost of adopting standards is also low because the majority of recommended technical standards replicate or draw upon existing state standards (e.g., those adopted by California and other states) or well-established programs such as ENERGY STAR. And since states themselves own appliances, consume energy and thus save money when efficiency standards lower their appliances' energy costs, a state's direct energy bill savings can easily exceed the modest costs it incurs in administering a standards program. In short, state energy efficiency standards for appliances can pay for themselves. The California Energy Commission estimates that the state's appliance standards have saved state government at least \$3 million annually since 1978.

## PUBLIC PERCEPTION

The public overwhelmingly supports regulating appliance efficiency as a means of reducing energy use. Eighty-three percent of individuals polled by ABC News in March 2006 believed that the government should either encourage or require that appliances be built to use less electricity (see Chart below 1). Moreover, according to a joint report by the Century Foundation and the Center for American Progress, 81 percent of individuals polled in June 2005 by the Program on International Policy Attitudes (PIPA) favored incentives like tax credits and rebates to encourage consumers and businesses to upgrade to energy efficient appliances.

### CHART

**Respondents' Preference for Government Action in Appliance Energy Efficiency Standards**



Source: ABC News

## TALKING POINTS

*Doesn't setting state level appliance standards put appliance manufacturers and industries in that state at a competitive disadvantage?*

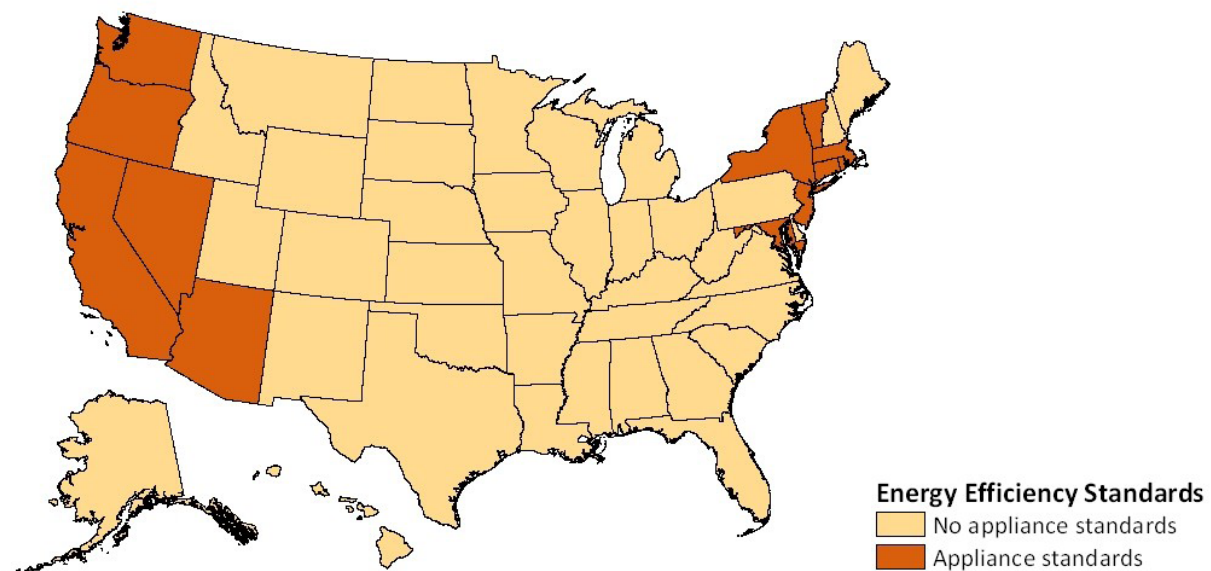
No. Industries that take the lead with energy-saving technologies will be better positioned to compete as stricter standards get in other states and at the national level. Moreover, standards enhance competitiveness by encouraging industries to be technological leaders. Being ready for the future is a competitive advantage, not a disadvantage.

*What are the benefits of appliance standards beyond energy reduction?*

Efficiency standards for appliances: (1) save consumers and businesses money, (2) create jobs in the manufacturing, installation, and maintenance of new products, (3) reduce overall energy use, thereby reducing need for polluting power plants, (4) enhance competitiveness by encouraging industries to be technological leaders, and (5) improve national security by reducing national dependence on imported natural gas. Energy efficiency standards also stimulate local economies: dollars that households and firms save on energy are often recycled to local stores or reinvested in local businesses. A complete list of the benefits deriving from appliance standards is provided by the Appliance Standards Awareness Project

## WHO ELSE IS DOING IT?

According to the Database of State Incentives for Renewables and Efficiency (DSIRE), 12 states have adopted energy standards for appliances: Arizona, California, Connecticut, Maryland, Massachusetts, Nevada, New Jersey, New York, Oregon, Rhode Island, Vermont, and Washington.



## SPOTLIGHT ON INNOVATION

*California:* California was the first state to adopt product standards and has the most extensive standards in the country. The California Energy Commission estimates that California's appliance standards have saved state government at least \$3 million per year since 1978 and have cut per capita energy use by one-third.

*Washington:* In February 2007, Governor Christine Gregoire issued a 2007 WA Executive Order 07-02 which called for the use of appliance efficiency standards as a means of helping the state to meet newly established gas emissions reduction and clean energy economy goals.

## WHAT CAN YOU DO?

### ***Exercise executive purchasing power to promote energy efficient appliances***

Various states have created procurement rules to ensure that state facilities are equipped with energy efficient appliances as rated by Energy Star or the Federal Energy Management Program. The Database of State Incentives for Renewables and Efficiency (DSIRE) provides links to various state executive orders including efficient procurement specifications.

### ***Require or encourage recipients of large sums of taxpayer dollars to adhere to energy efficiency standards in their own purchase of appliances***

State executives may want to "push the envelope" in this area in several ways. First, since states often provide major funding to school districts and local governments, state executives could extend the procurement rules for state facilities to the local government facilities operated by school districts, counties, cities, and other local governments. Second, state executives could modify their procurement processes to require or give incentives to the many contractors that the state does business with—from vendors where the state is the primary or a major customer (such as nursing homes, home health agencies, and road-builders) to vendors where the state is a significant customer (like hospitals or computer companies)—to adhere to energy efficiency standards in their purchase of appliances. Third, state executives could look at attaching energy efficient standards to the many taxpayer-supported benefits that the state gives out—from grants to private agencies that carry out public purposes, to loans to developers, to tax breaks linked to a public purpose.

### ***Target commonly used and energy-intensive products not covered by federal regulations***

Technical information and impact analysis for 15 key products for which higher standards are encouraged is provided in the following joint report by the Appliance Standards Awareness Project (ASAP) and the American Council for an Energy-Efficient Economy (ACEEE). Model legislation is available from the Apollo Alliance.

### ***Promote new appliance standards through their inclusion in executive orders related to state-wide energy policy***

For example, the 2007 WA Executive Order 07-02 issued by Washington Governor Christine Gregoire in February 2007 called for "examining compliance with appliance efficiency standards and updating and enhancing those standards."

## RESOURCES

### Policy Reports

#### ABC News

- “Public Concern on Warming Gains Intensity”  
<http://abcnews.go.com/Technology/GlobalWarming/Story?id=1750492&page=1>

#### American Council for an Energy-Efficient Economy and Appliance Standards Awareness Project

- “Leading the Way: Continued Opportunities for New State Appliance and Equipment Efficiency Standards”

#### Appliance Standards Awareness Project

- <http://www.standardsasap.org/>

#### Apollo Alliance

- “New Energy for States: Energy-Saving Policies for Governors and Legislators”  
[http://apolloalliance.org/downloads/resources\\_apollostate\\_report.pdf](http://apolloalliance.org/downloads/resources_apollostate_report.pdf)
- Model Legislation  
[http://www.apolloalliance.org/downloads/resources\\_state\\_four\\_point\\_plan.pdf](http://www.apolloalliance.org/downloads/resources_state_four_point_plan.pdf)

#### California Energy Commission

- “Innovations in State Appliance Standards”  
<http://www.energy.ca.gov/2005publications/CEC-999-2005-018/CEC-999-2005-018.PDF>

#### The Century Foundation

- “What the Public Really Wants on Energy and the Environment”  
<http://www.americanprogress.org/issues/2007/03/pdf/wtprw.pdf>

#### Database of State Incentives for Renewables and Efficiency (DSIRE)

- <http://www.dsireusa.org/>

#### Energy Efficiency Administration

- “Short-Term Energy Outlook”  
<http://www.eia.doe.gov/emeu/steo/pub/jan09.pdf>

#### Program on International Policy Alternatives

- <http://www.pipa.org/>

#### US Department of Energy Federal Energy Management Program

- <http://www1.eere.energy.gov/femp/>

### State Executive Orders

#### Washington

##### Office of the Governor

- Executive Order 07-02 “Innovations in State Appliance Standards”  
[http://www.governor.wa.gov/execorders/eo\\_07-02.pdf](http://www.governor.wa.gov/execorders/eo_07-02.pdf)