



## ***ENERGY-EFFICIENT AIR CONDITIONERS: NEW STANDARDS COMING IN 2006***

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### **SAVING MONEY AND SAVING ENERGY**

*New air conditioner standards go into effect January 23, 2006.*

*What does this mean for consumers?*

*New air conditioners manufactured after that date will be more energy-efficient and save money.*

*Existing air conditioners are not affected and homeowners do not have to replace them.*

#### **Background:**

To increase the energy efficiency of residential air conditioners, the Department of Energy has issued new standards that go into effect January 23, 2006. Products manufactured as of January 23 will have to meet the new standards. The standards, however, will not require homeowners to change their existing central air conditioning units, nor will it mean that replacement parts and services will no longer be available for their home's systems.

It's true that air conditioners manufactured after January 23 must meet a higher minimum standard, achieving a Seasonal Energy Efficiency Ratio (SEER) of 13 or higher; the current standard is 10. (A SEER rating of 13 is 30 percent more efficient than 10.) The standard applies only to appliances *manufactured* after January 23, 2006. Equipment with a rating less than 13 SEER manufactured before this date may still be sold and installed. The average homeowner will remain unaffected by this standard change for some time to come.

The "lifespan" of a central air conditioner is about 15 to 20 years. Manufacturers typically continue to support existing equipment by making replacement parts available and honoring maintenance contracts after the new standard goes into effect. A change in the standard does not require replacement of equipment. Nor does a change in the standard mean that an existing system will be obsolete or impossible to maintain.

Here are some Qs and As to help understand the issue:

#### **Q1. What's happening with air conditioner efficiency standards next January?**

A1. To improve the energy efficiency of air conditioners, the Department of Energy has issued new residential central air conditioner standards that will take effect January 23, 2006. New air conditioners *manufactured* on or after January 23 will have to meet the new efficiency standards. The last time the government increased minimum efficiency standards for air conditioners was almost 10 years ago.

The new standards do not require homeowners to change their existing central air conditioning units. Replacement parts and services will still be available to maintain current home air conditioners.

Air conditioners manufactured after January 23 must achieve a Seasonal Energy Efficiency Ratio (SEER) of 13 or higher -- 30 percent more efficient than the current SEER standard of 10. The standard applies only to appliances *manufactured* after January 23, 2006. Equipment with a rating less than SEER 13 manufactured before this date may still be sold and installed. The average homeowner will remain unaffected by this standard change for some time to come.

**Q2. Why is DOE issuing new air conditioner standards?**

Q2. The Department of Energy is directed by the Energy Policy and Conservation Act to consider establishing minimum efficiency standards for various consumer products, including central air conditioners and central air conditioning heat pumps. The department has determined that the new standards are the highest efficiency levels that are technically feasible and economically justified as required by law. Therefore, the department is amending the energy conservation standards for residential central air conditioners and central air conditioning heat pumps.

In 2004, DOE amended the minimum efficiency standards for new central air conditioners and heat pumps that had been in effect for almost ten years. These amended standards take into account a decade of technological advancements and will save consumers and the nation money and significant amounts of energy, and have substantial environmental and economic benefits as well. These standards go into effect January 23, 2006.

**Q3. What are homeowners required to do once the new rules go into effect?**

A3. Nothing at all. As of January, 2006, all central air conditioners manufactured will meet this standard. Central air conditioners already in the marketplace that meet the old standard can still be sold and purchased at that time. Homeowners do not have to upgrade or replace existing central air conditioners.

The "lifespan" of a central air conditioner is about 15 to 20 years. Manufacturers typically continue to support existing equipment by making replacement parts available and honoring maintenance contracts after the new standard goes into effect. A change in the standard will not require replacement of equipment, nor will it make an existing system obsolete or impossible to maintain.

**Q4. How much energy will the new central air conditioner standards save?**

A4. The 13 SEER standard is forecasted to save the nation 4.2 quads (quadrillion British Thermal Units) of energy over 25 years (2006 through 2030). This is equivalent to the energy consumed by nearly 26 million American households in one year. The standards are also expected to save consumers \$1 billion over the same period.

**Q5. What does DOE say to the question that, if you upgrade just the outside of your A/C and not the inside coil, it won't meet the 13 SEER standards?**

A5. DOE encourages consumers to replace the entire system, outside unit as well as the inside coil. The standards, however, apply to new systems, i.e., indoor and outdoor combinations, so consumers are able to replace the outdoor unit without replacing the indoor coil.

**Q6. Do home builders have to install new standard central air conditioners now? Can they sell homes already built with central air conditioners that don't meet the new standards?**

A6. Nothing goes into effect until January 23, 2006, so homebuilders can build homes now with central air conditioners that meet the old (current) standards. As of next January, homebuilders will be

able to purchase and install any existing units at the old standard level, but all products manufactured after that date will be more energy-efficient.

**Q7. How will DOE enforce the 13 SEER central air conditioner standards?**

A7. DOE's Certification and Enforcement regulations require manufacturers to test a sample of products and report the results to DOE. Furthermore, DOE allows for third-party reporting of the certification data. In the case of central air conditioners, most manufacturers choose to have the Air-Conditioning and Refrigeration Institute (ARI) certify on their behalf. ARI's reporting has been based on the results of manufacturer testing as well as the results of testing conducted as part of the industry certification program. Through this industry-sponsored program, DOE has found that there have been few enforcement issues as the industry certification program has identified problems as they arise.

**Q8: What exactly does SEER mean?**

A8: SEER stands for Seasonal Energy Efficiency Ratio, the Department of Energy's measure of energy efficiency for the seasonal cooling performance of central air conditioners and central air conditioning heat pumps.

The 2006 standards will essentially raise the energy efficiency standards to 13 SEER for new central air conditioners and to 13 SEER/7.7 HSPF for new central air conditioning heat pumps. The standards will apply to products manufactured for sale in the United States as of January 23, 2006. HSPF stands for Heating Seasonal Performance Factor, the Department of Energy's measure of energy efficiency for the seasonal heating performance of central air conditioning heat pumps.

The standard for split-system air conditioners, the most common type of residential air conditioning equipment, represents a 30 percent improvement in energy efficiency. For split-system heat pumps, the new standard would represent a 30 percent improvement in cooling efficiency and a 13 percent improvement in heating efficiency. The standard will also increase the cooling efficiency of single-package air conditioners and single-package heat pumps by 34 percent and the heating efficiency of single-package heat pumps by 17 percent.

The amended efficiency levels can be met by central air conditioner and central air conditioning heat pump designs that are already available in the market. We fully expect variations of these models to exist under the new standards, offering all the features and utility found in currently available products.

**Q9. Where can I get more information on the new central air conditioning standards?**

A9. For more information, see [http://www.eere.energy.gov/buildings/appliance\\_standards/residential/central\\_ac\\_hp.html](http://www.eere.energy.gov/buildings/appliance_standards/residential/central_ac_hp.html)