

WHAT IS 13 SEER?

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Replace Your Air Conditioner Now or Replace It With 13 SEER Later: *The Facts You Need to Know to Make the Best Decision*

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I. INTRODUCTION

In April 2004, the Federal Department of Energy (DOE) finalized regulations requiring that, beginning January 2006, air conditioners manufactured and installed within the United States must meet an efficiency level of at least 13 SEER. This represents a 30% increase

in efficiency over the existing minimum standard of 10 SEER, which has been in place since 1992.

The purpose of this Report is to provide information that will enable you to make the best decision regarding replacing your home's central air conditioning system.

II. Understanding Energy Efficiency Standards for your A/C

The efficiency of air conditioning equipment refers to the amount of cooling it delivers, compared to the amount of electricity it consumes. It is expressed as SEER, or Seasonal Energy Efficiency Ratio.

A unit's SEER is calculated by dividing the total number of BTUs (British Thermal Units) of heat removed from the air by the total amount of energy required by the equipment. The higher the SEER rating, the more energy efficient the equipment is. A higher SEER can result in lower energy costs.

The 13 SEER standard represents a 30% increase in energy efficiency compared to the current standard of 10 SEER, which went into effect in 1992. 10 SEER will continue to be the national minimum efficiency standard for central air conditioners and heat pumps until January 26, 2006. After that date, all air conditioners manufactured and installed in the United States must meet the 13 SEER minimum standard.

III. Impact of Replacing Your Air Conditioner with a 13 SEER Unit

13 SEER equipment is more expensive than 10 or 12 SEER equipment. (See Part IV., below, for further information.) Because of this, the payback period for consumers will be longer than it would be for lower efficiency equipment. The payback period is the period of time it takes before a consumer recoups, through lower utility bills, the price increase of the more efficient units. When the 13 SEER standard was first introduced under President Clinton's Administration, the payback period was estimated at more than 11

years, as a national average. However, because the Northeast has a relatively short “cooling season” (compared, for example, to Florida or Texas), air conditioners are typically used less, so the payback period can be longer.

IV. Three Reasons to Replace Now vs. Later

A. Age of Your Air Conditioner

If your existing air conditioner is more than 10 years old, chances are good that it is also inefficient. A 10-year-old air conditioner probably had an original SEER rating between 7.0 and 8.0. Depending on the level of maintenance your unit has received, that rating may now be much lower. From now to early fall 2005, there is a window of opportunity to obtain the benefits of a new system (higher energy efficiency, improved reliability, warranty protection) with the economic benefit of the quicker payback period of a 10 or 12 SEER unit. After January 2006, you will not have the option of installing the lower SEER equipment, even though it may be perfectly adequate for your requirements.

B. Equipment and Installation Cost

According to the Service Roundtable (an industry association serving HVAC and plumbing contractors), 13 SEER equipment will cost more, possibly significantly more, than lower SEER equipment. Today, most manufacturers already produce and sell 13 SEER equipment at a significantly higher cost than 10 SEER. When they begin to produce 13 SEER in volume (as the new minimum standard) costs can be reduced. However, the features that result in higher efficiency, such as increased coil sizes and more expensive components, will most likely keep the cost of 13 SEER air conditioners much higher than the cost of 10 SEER.

13 SEER equipment is physically larger. Potentially, this could lead to higher installation costs for three main reasons. First, condensing units (the portion of your central air system that is located outside) may need to be relocated, if existing space is insufficient. Secondly, 13 SEER units may have a larger indoor coil, depending on the manufacturer. If so, air handlers originally designed for smaller,

lower-SEER indoor coils could require replacing. The third factor is potential need for replacement of line sets—the lines running from your outdoor condenser to the inside equipment. By comparison, when replacing with 10 or 12 SEER new equipment, the only portion of your existing system that requires replacement is the outdoor condenser.

C. Special Considerations for Condo Re-Sales

If you are a condominium owner considering selling within the next year or so, and your air conditioner is ten years or older, you should be aware that you may have to replace your A/C in order to get a sale. A prospective buyer will not want to be saddled with an older, less efficient unit that is more susceptible to major breakdown. Replacing your older system with the more cost effective 10 or 12 SEER unit this summer will make your condo more attractive to buyers because a new, energy efficient system will be in place. Buyers will also be appreciative that they won't be stuck with an expensive upgrade to 13 SEER after January 2006.

Contact Pack-Timco at (203) 845-0484 Extension 3014 to discuss options for replacing or upgrading your air conditioning system. Our licensed, experienced technicians will review your requirements and advise you on the best system to fit your needs.