

High Efficiency Air Conditioners

Today's best air conditioners use 30% to 50% less energy to produce the same amount of cooling as air conditioners made in the mid 1970s. Even if your air conditioner is only 10 years old, you may save 20% to 40% of your cooling energy costs by replacing it with a newer, more efficient model.

Sizing Air Conditioners

Air conditioners are rated by the number of British Thermal Units (Btu) of heat they can remove per hour. Another common rating term for air conditioning size is the "ton," which is 12,000 Btu per hour.

How big should your air conditioner be? The size of an air conditioner depends on:

- how large your home is and how many windows it has;
- how much shade is on your home's windows, walls, and roof;
- how much insulation is in your home's ceiling and walls;
- how much air leaks into your home from the outside; and
- how much heat the occupants and appliances in your home generate.

An air conditioner's efficiency, performance, durability, and initial cost depend on matching its size to the above factors. Make sure you buy the correct size of air conditioner. Two groups—the Air Conditioning Contractors of America (ACCA) and the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)—publish calculation procedures for sizing central air conditioners. Reputable air conditioning contractors will use one of these procedures, often performed with the aid of a computer, to size your new central air conditioner. Be aware that a large air conditioner will not provide the best cooling.

Air Conditioner Efficiency

Each air conditioner has an energy-efficiency rating that lists how many Btu per hour are removed for each watt of power it draws. For room air conditioners, this efficiency rating is the Energy Efficiency Ratio, or EER. For central air conditioners, it is the Seasonal Energy Efficiency Ratio, or SEER. These ratings are posted on an Energy Guide Label, which must be conspicuously attached to all new air conditioners. Many air conditioner manufacturers are participants in the voluntary EnergyStar® labeling program. EnergyStar-labeled appliances mean that they have high EER and SEER ratings. In general, new air conditioners with higher EERs or SEERs sport higher price tags. However, the higher initial cost of an energy-efficient model will be repaid to you several times during its life span.

Room Air Conditioners-EER

Select a room air conditioner with an EER of at least 9.0 if you live in a mild climate. If you live in a hot climate, select one with an EER over 10.

Central Air Conditioners-SEER

National minimum standards for central air conditioners require a SEER of 9.7 and 10.0, for single-package and split-systems, respectively. But you do not need to settle for the minimum standard—there is a wide selection of units with SEERs reaching nearly 17. Remember, the higher the SEER rating, the more efficient and less costly to operate the air conditioner. Replacing a 1970s-era central air conditioner with a SEER of 6 with a new unit having a SEER of 12 will cut your air conditioning costs in half.

If you would like additional energy savings tips, please see our energy efficiency section at www.vectren.com or contact us by e-mail at marketinginfo@vectren.com.

