

## High-Efficiency Air Conditioning Program



### How Do I Get a High-Efficiency Air Conditioner?

When selecting your next air conditioner, ask your contractor for an ENERGY STAR® qualified system. With no compromise to system quality, you know that it meets strict energy-efficiency guidelines set by the US Environmental Protection Agency (EPA). Making the choice to buy an ENERGY STAR® qualified air conditioner will save you money and help to protect our environment.

ENERGY STAR's high-efficiency guidelines apply to cooling equipment with efficiency ratings of 14.5 SEER and 12.0 EER or higher for split systems and 14.0 SEER and 11.0 EER or higher for package systems.

### What are SEER and EER?

Seasonal Energy Efficiency Ratio (SEER) is the measure of a unit's average energy efficiency over a cooling season. The federal energy-efficiency standard for new equipment changed in January of 2006 from 10.0 SEER to 13.0 SEER. Units manufactured after January 23, 2006 must have a SEER rating of 13.0 or higher. While 13.0 SEER equipment may be more efficient than your current system, it is now considered standard efficiency.

Energy Efficiency Ratio (EER) is a measurement of how energy-efficient an air conditioner remains at high outdoor temperatures and persistent use. Many central air conditioners do not operate efficiently at high outdoor temperatures (95°F and above). A high EER rating ensures that your unit is operating efficiently at all temperatures.

### Ensure That Your System Components Match

There are two types of systems; package units that contain their components in a single enclosure, and split systems that have an outdoor condensing unit and an indoor coil. If you choose a split system, the condensing unit and the coil components must be matched and replaced together when a new system is installed to ensure that your new cooling equipment performs at its peak efficiency.

### NEW — AquaChill

After years of research and testing through our Emerging Technology program, SMUD is pleased to introduce the new AquaChill product for residential homeowners. The AquaChill was designed by local engineers specifically for hot climate areas like Sacramento. It is the only air conditioner made specifically for climates with temperatures of 95 degrees and above. The key feature behind this advanced technology is water. The AquaChill uses the natural cooling power of water to pre-cool the refrigerant coils, giving the edge it needs to keep your home cool and comfortable even when the temperatures soar past 110 degrees.

Even better - the AquaChill uses 31% LESS energy than a typical air conditioner. AquaChill is assembled and distributed locally. Special manufacture rebate available.

### California's Energy Code (Title 24)

Requirements for the installation of central air conditioners shall comply with the State of California Residential Title 24 energy efficiency requirements including:

- **Refrigerant Charge**—Performance and efficiency of your air conditioner is greatest when the refrigerant charge is correct.
- **Duct Sealing**—A duct system that is properly sealed can make your home more comfortable and more energy efficient.
- **Air Flow**—Having the correct amount of air flow across the indoor coil is important for proper operating performance of your air conditioner and comfort.
- **Fan Watt**—Keeping the total fan wattage less than 0.58 watts per CFM ensures that the system operates to its maximum potential.

Correct refrigerant charge, proper air flow and tight ducts are vital to the operation of your new central air conditioner. They will also increase equipment life and help reduce energy use.

### Building Permit

Your contractor is required by California law to obtain a building permit for air conditioner replacements or new installations through your local city or county building department. The contractor and homeowner are responsible to ensure that the building permit is finalized. A finalized permit helps to insure that you are not exposed to additional costs or liability.

### Get The Right-Sized Unit

When it comes to cooling equipment, bigger isn't always better. Studies show that 1/3 to 1/2 of home air conditioners don't work the way they should because they are improperly sized. Improperly sized equipment will operate in short run times or cycles, not allowing the unit to reach efficient operation or deliver even temperatures throughout your home. A right-sized unit will provide more comfort and cost less to operate than an oversized system. Title 24 energy code and SMUD program require sizing by an engineered load calculation method.



(More information on back)

# High-Efficiency Air Conditioning Program *(continued)*

## Minimum Efficiency Tiers for Rebates and Financing for Central Air Conditioners

SMUD is offering rebates to customers who install ENERGY STAR® air conditioners at the highest efficiency levels. The rebate amount is based on the minimum efficiency levels (SEER and EER) shown below.

### Split System

Tier	Minimum SEER	Minimum EER	Title 24	Rebate
1	14.5	12.0	Required for all tiers	\$400
2	15.0	12.5	• Refrigerant Charge	\$500
3*	16.0	13.0	• Duct Sealing • Fan Watt • Airflow	\$650

\* Split system central A/C only. Heat Pumps not eligible for Tier 3.

### Package System

Tier	Minimum SEER	Minimum EER	Title 24	Rebate
1	14.0	11.0	Required for all tiers • Refrigerant Charge	\$400
2	14.0	12.0	• Duct Sealing • Fan Watt • Airflow	\$500

## Program Eligibility Requirements

- Residence must be in SMUD service territory and have an active residential electric service rate.

## SMUD Financing

SMUD offers 100% financing for a maximum term of 10 years. Loan amounts can include a new gas furnace and upgrade components if installed as part of the system. If you use SMUD financing to purchase your high-efficiency air conditioner, the rebate will be deducted from the contract price. Interest rates vary.†

## Choosing a Contractor

Finding a good contractor requires references. As a starting point, you can go to a number of websites for help:

- Angie's List is a membership service that compiles consumer ratings of local service companies and contractors. Use the promo code EASY to get a discount on membership and use the site to research and choose a contractor.
- The Better Business Bureau lets you research companies to see if they are the subject of complaints filed with the BBB.
- HomeAdvisor.com lets you gather price quotes from service companies that work with HomeAdvisor.
- Yelp.com offers community ratings and comments for a wide range of businesses.
- Get at least three bids, and check references and recent projects.

SMUD does not endorse a specific contractor. Contractor license numbers can be checked online at [www.cslb.ca.gov](http://www.cslb.ca.gov) or by calling 1-800-321-CSLB (2752).

The contractor you hire should:

- Have a license to perform the work.
- Have proper insurance coverage and performance bonds.
- Comply with city/county ordinances and building codes, where applicable.
- Provide a complete description and cost of the job in writing.
- Never ask for more than 10% down or \$1,000, whichever is less, as allowed by law.
- Provide references upon request.

Please note that SMUD does not endorse or warrant any workmanship, installation, labor, cost or materials of your chosen contractor. For a complete list of recommendations please visit [www.smud.org](http://www.smud.org).

## SMUD is not responsible for repairs or service.

Some manufacturers of heating and air conditioning equipment may offer an extended parts and labor warranty for an additional charge. Please give special attention to the contractor and manufacturer warranty prior to signing a contract. If you have questions, ask your salesperson to explain or check with the manufacturer.

## Maintenance

It is important to properly operate and maintain your new equipment. Check your filter at least once a month. Be sure it is clean and fits properly so that no air bypasses it. Clogged filters can cause the equipment to malfunction and ducts to collapse. Ask your contractor for additional instructions for your particular equipment.

## For More Information

For more information on high-efficiency air conditioners or other Residential Equipment Efficiency Programs, call SMUD at 1-888-742-SMUD (7683) or visit [www.smud.org/rebates](http://www.smud.org/rebates).

† For current rates call 1-888-742-SMUD (7683).