Xcel Energy®
RESPONSIBLE BY NATURE®

Quality Installation

Nearly 50 percent of all heating and cooling systems are installed incorrectly.* When buying a central AC, air source heat pump or ground source heat pump system, maximize your potential energy savings by getting Quality Installation. Quality Installation can make your new AC system more efficient, extend its life, lower your electric bill, and increase your comfort.

Sealing ducts

Many homes have hot and cold spots caused by leaks in the ventilation system. Even sealing just the visible ducts can significantly reduce air leakage and improve comfort. Other ventilation system improvements may also be desirable.

Sizing and selecting the right system

Oversizing an AC system wastes energy, shortens the life of the system, raises energy bills, and decreases comfort. Your contractor should do a scientific load calculation to properly size it. Factors that influence the amount of cooling needed include your home's age, dimensions, insulation, materials of construction, sun exposure and window count, size, type and coverings.

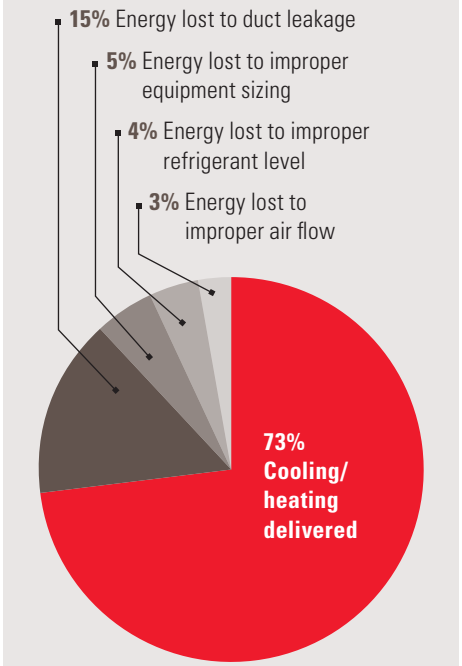
Setting the right refrigerant charge

Not enough refrigerant means your home can't get cool. Too much refrigerant means you're wasting cooling and may freeze the refrigerant lines. Your contractor should install a thermostatic expansion valve (TXV) to regulate the refrigerant charge. Proper installation should be done when the outdoor temperature is at least 67 degrees. Your contractor should ensure that the subcool value is within three degrees of the manufacturer's recommendation.

Matching the system to the available air flow

When the AC is too large for the ventilation system to handle, the cooling will be ineffective and waste energy. Ensuring that the AC unit and ventilation capacity are matched will improve system performance and extend the life of the equipment.

Energy Lost in a Typical Installation**



Quality Installation will save you money, keep you comfortable and extend the life of your system. Make sure you choose a contractor who is committed to Quality Installation. Find a participating Central Air Conditioner contractor at **www.xcelenergy.com/COtrades**. Then ask them to explain the quality installation information on the Xcel Energy AC rebate application form.

** https://www.energystar.gov/index.cfm?c=hvac_install.hvac_install_index*

*** https://www.energystar.gov/ia/home_improvement/downloads/ESQI_factsheet.pdf?a0fa-c969*