



## Glossary

**Air Conditioning, Heating and Refrigeration Institute (AHRI):** This organization offers product information and testing procedures. For more information, visit [ahrinet.org](http://ahrinet.org).

**American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE):** This organization provides lists of program-qualifying products and information on test procedures. For more information, visit [ashrae.org](http://ashrae.org).

**Annual Fuel Utilization Efficiency (AFUE):** This measures the percentage of fuel that is converted into usable heating energy. For example, a 90 percent AFUE furnace means that 90 percent of the fuel is used in heating a facility, while 10 percent escapes as exhaust with the combustion gases.

**Anti-Sweat Heaters (ASH):** ASH are typically applied to low-temperature refrigerated display cases to prevent glass doors from fogging and cold surfaces from forming condensation. Commonly, ASH stay on at full load around the clock. Their contribution to the cooling load and electric power consumption of the refrigeration system can be significant.

**Ballast:** This is a lighting component that controls the electrical current drawn in from a power source.

**Btu:** British thermal unit, which refers to the amount of heat required to raise the temperature of 1 pound of water by 1 degree Fahrenheit.

**Btuh:** British thermal units per hour.

**Bubble Diffusion:** This is a laundry method of inserting ozone into water by continuously bubbling ozone directly into the drum of the clothes washer throughout the wash cycle.

**California Energy Commission's Appliance Efficiency Database:** [energy.ca.gov/appliances](http://energy.ca.gov/appliances).

**CEC:** This refers to the California Energy Commission.

**Climate Zones (CZ):** Climate zones are based on energy use, temperature, weather and other factors. They are basically a set of geographic areas that are grouped according to similar climatic characteristics.

**CO<sub>2</sub> Sensor:** This device measures the parts per million (PPM) of CO<sub>2</sub> in the air.

**Color Rendering Index (CRI):** This is a measure of a light source's ability to show object colors "realistically" or "naturally" compared to a familiar reference source, either incandescent light or daylight.

**Conditioned Area/Space:** This term refers to an area being heated or cooled by the heating, ventilation and air conditioning (HVAC) system.

**Consortium for Energy Efficiency (CEE):** To learn more about CEE's Tier specifications, visit [cee1.org](http://cee1.org).

**Database for Energy Efficient Resources (DEER):** This database contains information on selected energy-efficient technologies and measures.

**Display Case:** This equipment is designed to store and display chilled and/or frozen foodstuffs.

**Electrical Testing Laboratory (ETL):** This organization marks products of compliance to applicable electrical, gas and other safety standards. For more information, visit [etl.com](http://etl.com).

**Electronically Commutated Motors (ECM):** ECMs are synchronous motors that are powered by a DC electric source using an integrated inverter/switching power supply, producing an AC electric signal, which drives the motor.

**End-Use Customers:** This term refers to customers who acquire energy for their own consumption.

**Energy Factor (EF):** EF measures a water heater's efficiency, based on recovery efficiency, standby losses and cycling losses. The higher the EF, the more efficient the water heater. This measure is only used for residential-grade water heaters.

**ENERGY STAR®:** To learn more about ENERGY STAR's energy-efficiency specifications, visit [energystar.gov/cfs](http://energystar.gov/cfs).

**Fixture:** Generally, a light fixture is an electrical device used to create artificial light by use of an electric lamp. All light fixtures have a fixture body and a socket to hold the lamp and allow for its replacement. For PG&E lighting rebates, a fixture refers to new equipment being installed based on system wattage (lamp and ballast for fluorescent fixtures).

**HID:** This refers to high-intensity discharge.

**High-Performance Linear Fluorescent Fixture Ballasts:** This term refers to National Electrical Manufacturers Association (NEMA) premium or Consortium for Energy Efficiency (CEE)-qualified T8 ballasts or T5 ballasts.

**High-Performance Linear Fluorescent Lamps:** This refers to Consortium for Energy Efficiency (CEE)-qualified 4-foot T8 lamps or 2-foot T8/T5 lamps with at least 20,000-hour-rated life and a Color Rendering Index (CRI) that meets or exceeds 82.

**Horsepower (hp):** This is a unit of power equal to 550 foot-pounds per second.

**Ice Making Head (IMH):** Automatic commercial ice makers that do not contain integral storage bins, but are generally designed to accommodate a variety of bin capacities. Storage bins entail additional energy use not included in the reported energy consumption figures for these units.

**Indoor Tank:** This refers to a tank located in an enclosed indoor space, where it is not exposed to sun or wind.

**Integrated Retrofit Kits:** These replace existing fluorescent lamps, sockets and ballasts, along with the lens and frame, and they can be installed easily into the existing fluorescent fixture. Troffers provide the required electrical components, LED light sources and optical elements, which include new lens and door frame—all in a prepackaged kit.

**K-Value:** This refers to thermal conductivity and has a unit of Btu-inch per hour, per square foot, per degree Fahrenheit.

**Kilolumen:** A kilolumen is 1,000 lumens.

**Large Office:** This refers to office buildings typically greater than 20,000 square feet.

**Large Retail:** Retail buildings that are typically greater than 5,000 square feet.

**Light-Emitting Diode (LED):** LED is a light-emitting diode product that is assembled into a lamp (or light bulb) for use in lighting fixtures. LED lamps have a lifespan and electrical efficiency that is several times better than incandescent lamps, and significantly better than most fluorescent lamps, with some chips able to emit more than 100 lumens per watt.

**Low Temperature:** For freezers, refrigerated space temperatures are considered “low” if they are below 32 degrees Fahrenheit.

**Lumen (lm):** A lumen is the unit of light output.

**MBtu:** 1,000 British thermal units.

**MBtuh:** 1,000 British thermal units per hour.

**Medium Temperature:** For coolers, refrigerated space temperatures are considered “medium” if they are between 32 to 50 degrees Fahrenheit.

**Minimum Energy Efficiency Ratio (EER):** EER is a measure of the efficiency of the unit. It indicates the cooling capacity in Btu per watt hour. The higher the EER rating, the higher the efficiency of the unit.

**National Electrical Manufacturers Association (NEMA) Premium Ballasts:** These are the most efficient fluorescent fixed output and dimmable electronics for T8 ballasts to be recognized by NEMA.

**NEMA Premium Motor:** This is an alternating current (AC) induction motor that has a certified efficiency rating from NEMA.

**Parking Garage:** A parking garage is a covered building or structure for the purpose of parking vehicles, which consists of at least a roof over the parking area, enclosed with walls on all sides. Parking garages may have fences, rails, partial walls (pony wall) or other barriers in place of one or more walls. The structure has an entrance(s) and exit(s) and includes areas for vehicle maneuvering to reach the parking spaces. If the roof of the parking structure is also used for parking, the section without an overhead roof is considered a parking lot instead of a parking garage.

**Permanent Mag Motor:** This term refers to a permanent magnet alternating current (AC) motor.

**Pounds per Square Inch (PSIG):** This refers to the pounds of steam pressure per square inch, as shown on a gauge. The steam system should have a steam pressure gauge attached that reads the pressure of the steam in the pipes. The pressure gauge will register in pounds of pressure per square inch.

**Reach-in Cabinets:** These are refrigerated retail display cabinets with chilled glass door(s) and horizontal/semi-horizontal merchandising. Cabinets enable customers to view contents even when closed, and enable customers to self-serve. Styles include:

- “Plug-in” refrigerated display cabinets with integral refrigeration systems (for example, incorporating a compressor and condensing unit)
- “Remote” refrigerated display cabinets designed to work with a nonintegral refrigeration system (for example, where the compressor and condenser, or all or parts of the refrigeration system, are located at a different location from the cabinet)

**Remote Condensing Unit (RCU):** A type of automatic commercial ice maker in which the ice-making mechanism and condenser or condensing unit are in separate sections. This includes ice makers with and without remote compressor.

**R-Value:** Insulation is rated in terms of thermal resistance, called R-value, which indicates the resistance to heat flow. A greater R-value corresponds with a greater insulating effectiveness.

**Self-Contained Unit (SCU):** A type of automatic commercial ice maker in which the ice-making mechanism and storage compartment are in an integral cabinet.

**Shaded-Pole Motor:** This type of motor is the original form of an AC single-phase induction motor.

**Small Office:** This refers to office buildings that are typically less than 20,000 square feet.

**Small Retail:** This refers to retail buildings that are typically less than 5,000 square feet.

**System Types:** Commercial refrigeration equipment can be classified into two categories: split-system refrigeration systems and self-contained refrigeration systems. Split-system configurations have a condenser unit that is located remotely, usually on the rooftop, which allows it to exchange heat with the outside air. Self-contained units have all of the components, including the condenser, contained in a single package.

**Thermal Efficiency (TE):** Measures a water heater's efficiency, based on recovery efficiency, standby losses and cycling losses. The higher the TE, the more efficient the water heater. It is only used for nonresidential grade water heaters.

**Ton:** When used in reference to air conditioning systems, a ton is the unit of measurement that is the cooling capacity of the system and is 12,000 Btuh.

**Total Washer Capacity:** This refers to the rated capacity of installed and operating washing machine units that will be connected to an ozone laundry system. This is normally measured in pounds capacity.

**Troffer:** A troffer is a rectangular light fixture that fits into a modular dropped ceiling grid.

**Underwriters Laboratories (UL):** This independent product safety certification organization's website is [ul.com](https://www.ul.com).

**Uniform Energy Factor (UEF):** This measures a water heater's efficiency, based on recovery efficiency, standby losses and cycling losses. The higher the UEF, the more efficient the water heater. UEF is used to measure both residential and nonresidential water heaters.

**Variable Frequency Drive (VFD):** This electric motor control changes the driven motor's input power frequency measured in cycles per second by either manual setting or variable input from one or more sensors.

**Venturi Injection:** This laundry method inserts ozone, using very high pressure, directly into the cold-water supply line leading to a washer.

**Walk-in Coolers/Freezers:** Also known as "walk-ins," these are insulated refrigerated spaces with access doors large enough for people to enter. Walk-ins are used for food storage and merchandising in the food service and food sales applications.