

# HIGH-EFFICIENCY COMMERCIAL AIR CONDITIONING AND HEAT PUMPS



**Overview:** The goal of this initiative is to encourage the proper installation and widespread use of high-efficiency unitary (single-packaged and split-system) central air conditioning and heat pump equipment in commercial buildings. The initiative's success stems from the efforts of key partners who voluntarily adopt and promote CEE's common energy-efficiency specifications.

Since 1994 CEE members have been actively promoting high-efficiency commercial HVAC equipment through this Initiative. By working with stakeholders in the HVAC industry, CEE has increased the awareness and acceptance of high-efficiency commercial equipment through efficiency programs across the nation. Currently 32 members are participating in the HECAC Initiative.

With new federal minimums taking effect as early as January 2008 for small commercial unitary equipment and January 2010 for larger unitary equipment, the CEE Commercial HVAC committee has been assessing new efficiency levels. In January 2007, CEE revised the specification for this next frontier of energy-efficient equipment.

In March 2001, CEE finalized *Guidelines for Energy-Efficient Commercial Unitary HVAC Systems*, a comprehensive document that defines energy-efficient installation practices for commercial unitary HVAC systems.

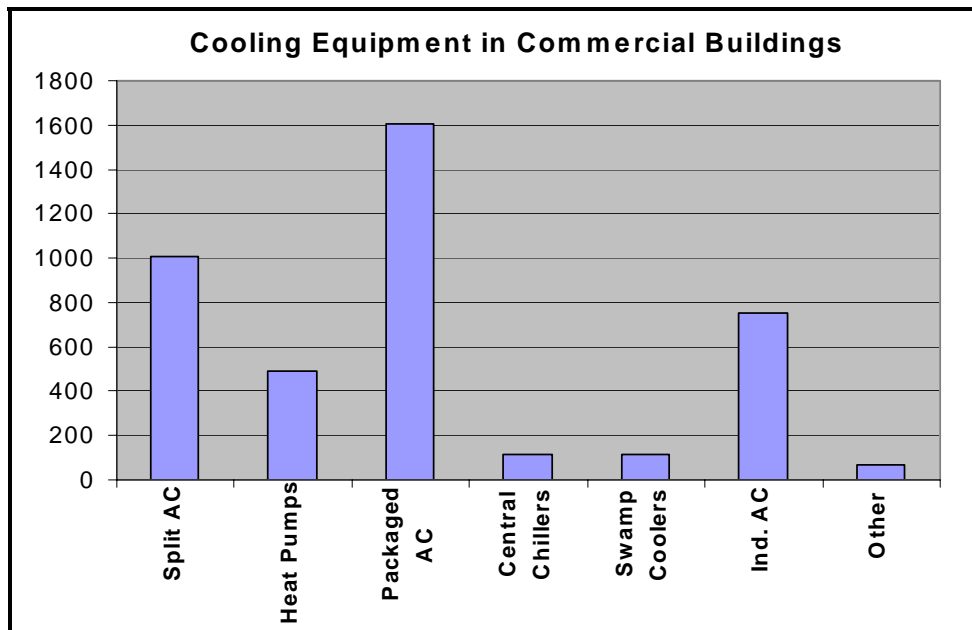
The guidelines, which are a component of this initiative, were developed in response to research indicating that proper sizing and installation of HVAC systems could significantly improve operating efficiency. The document is intended to be a resource for CEE members and others, to develop their own products and program components that encourage proper installation of commercial HVAC equipment.

The guidelines are posted on the CEE Web site ([www.cee1.org](http://www.cee1.org)) in the Commercial A/C and Heat Pumps section.

**About this Market:** Space cooling accounts for the second-highest use of electricity (approximately 19 percent of total consumption) in the commercial buildings sector; lighting is first at 34 percent.

The energy-savings potential of the commercial air conditioning market is significant since there are more than 4.86 million commercial buildings in the United States.

# FACT SHEET



**Accomplishments:** Participants in the HECAC Initiative helped drive the market for unitary, packaged, air conditioning and heat pump equipment. This resulted in increased availability and acceptance of high-efficiency equipment.

The CEE Specification is currently being promoted by member utilities and energy-efficiency organizations in their commercial HVAC programs. It is also utilized by other national programs.

**Energy and Peak Demand Savings:** High-efficiency air conditioners and heat pumps not only achieve energy savings but can reduce peak demand, which has become of increasing importance in California and other regions with supply shortages.

The use of high-efficiency air conditioners over standard models could also significantly alleviate pressures for increased capacity.

**Consumer Benefits:** The energy saved through this program will help keep electricity costs down and helps alleviate demand problems, as well as reduce the production of carbon dioxide, sulfur dioxide, and nitrogen oxide. These air pollutants are often associated with global warming, smog and acid rain. In 1999, electric space cooling produced 27.4 metric tons of carbon emissions; the opportunity to reduce this amount of pollution through energy saving high efficiency commercial air conditioners is large.

**Contact:** Additional information about CEE's High-Efficiency Commercial Air Conditioning and Heat Pump Initiative is available at [www.cee1.org](http://www.cee1.org) or by contacting John Taylor at 617-589-3949, ext. 228, or [jtaylor@cee1.org](mailto:jtaylor@cee1.org).