

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460



OFFICE OF
AIR AND RADIATION

January 2, 2008

Dear ENERGY STAR[®] Light Commercial HVAC Partner or Other Interested Stakeholder:

The purpose of this letter is to formally begin the process to revise the ENERGY STAR specification for Light Commercial HVAC in response to new federal minimum efficiency standards that have either taken effect or will take effect in 2010.

As you may know, the 2005 Energy Policy Act (EPACT) includes minimum efficiency standards for air-cooled central air conditioners and heat pumps (CAC/ASHP) rated between 65,000 and 240,000 Btu/h that are equal to or exceed the existing ENERGY STAR specification levels. More recently, the 2007 Energy Independence and Security Act (EISA) included minimum efficiency standards for 3-phase CAC/ASHP rated below 65,000 Btu/h that are equivalent to current ENERGY STAR specification levels. The EPACT requirements will go into effect on January 1, 2010, while the EISA requirements became effective on June 16, 2008.

In response, the U.S. Environmental Protection Agency (EPA) revisited the current ENERGY STAR requirements for light commercial HVAC and identified areas that need revision. The attached Draft 1 Version 2.0 specification seeks to address these areas and generate further discussion. **Stakeholders are encouraged to review the Draft 1 document and provide feedback to EPA by January 30, 2009.**

Air-Cooled, 3-Phase, Light Commercial HVAC Equipment < 65,000 Btu/h

It is EPA's understanding that many manufacturers offer single-phase (residential) and three-phase (commercial) models of less than 65,000 Btu/h, which are similar in construction and design. It has been suggested to EPA that the same efficiency improvements made to single-phase units can also be easily applied to three-phase units. Based on this input, EPA is proposing that the revised three-phase, <65,000 Btu/h light commercial HVAC equipment levels harmonize with the current ENERGY STAR Tier II levels for single-phase residential CAC/ASHP equipment.

EPA reviewed the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) Directory of Certified Products to determine the current model availability of three-phase, <65,000 Btu/h equipment at the proposed Draft 1 levels. While single package CAC and ASHP qualification rates are approximately 20%, split system CAC and ASHP qualification rates are below this level. While split systems are less common in commercial applications, EPA anticipates that as a result of the new minimum efficiency standards, more split system equipment will meet the new levels, and that by January 1, 2010, qualification rates will be closer to the 25% level typical for ENERGY STAR specifications.

Until the new specification takes effect, manufacturers may continue to use the ENERGY STAR mark on three-phase models rated below 65,000 Btu/h that meet the Version 1.0 specification. However, EPA will no longer accept new Qualified Product Information (QPI) forms for ENERGY STAR qualification for this size equipment at these efficiency levels. Prior to the Version 2.0 specification taking effect on January 1, 2010, QPI forms for this equipment size will again be accepted as long as they meet the new Version 2.0 requirements.

Air-Cooled, Light Commercial HVAC Equipment \geq 65,000 Btu/h

According to the minimum efficiency standards, as of January 1, 2010, Integrated Energy Efficiency Ratio, or IEER, a new part load energy efficiency descriptor for all commercial unitary products rated above 65,000 Btu/h will replace the Integrated Part Load Value (IPLV) metric. Therefore, EPA will set levels for IEER instead of IPLV in this revised ENERGY STAR specification.

According to AHRI, the earliest that certified ratings for IEER will be listed in a public database is January 1, 2010. In order to ensure that ENERGY STAR continues to represent the top energy performers, new ENERGY STAR levels will need to take effect at the same time the federal minimum requirements take effect (January 1, 2010). While EPA would prefer to use IEER performance results provided by the AHRI Certified Directory to analyze potential new levels, the timing of its availability does not coincide with the timeline for finalizing this new specification (i.e., approximately nine months prior to the effective date). Alternatively, EPA is anticipating receiving a proposal from the AHRI Committee with suggested IEER levels for ENERGY STAR. EPA will review this proposal for potential inclusion in subsequent drafts of this specification. Stakeholders are also encouraged to provide other suggestions for deriving IEER levels in the time period before an AHRI Directory that includes these values is available.

Draft 1 Comment Submittal

As with all ENERGY STAR specification development and revision efforts, EPA offers a transparent, open, and inclusive process with the intention of creating a high quality, industry supported specification. As EPA moves forward with revising the ENERGY STAR Light Commercial HVAC specification, the exchange of ideas and information between EPA, industry, and other interested parties is critical to developing a specification that is meaningful in the marketplace and contributes to further reductions of CO₂ emissions. As such, stakeholders are strongly encouraged to review and provide input on the attached Draft 1 Version 2.0 specification to Christina Chang, ICF International, at cchang@icfi.com by **January 30, 2009**.

Based on the complexity and breadth of comments received, EPA may hold a stakeholder meeting to allow for a more detailed discussion of outstanding issues. Subsequent drafts will be released for review and comment, as needed. Once the specification is finalized, manufacturers will have approximately nine months to transition to the new specification. It is EPA's goal to finalize the new specification no later than April 1, 2009, which is nine months prior to the EPACT effective date.

To track EPA's progress in revising the ENERGY STAR specification for Light Commercial HVAC, visit the Product Development Web site at: www.energystar.gov/productdevelopment (click on Revisions to Existing Specifications). All stakeholder comments on the Draft 1 Version 2.0 document will be posted to this Web site unless otherwise requested.

Thank you for taking the time to review this draft specification. Please contact me at (202) 343-9124 or schmeltz.rachel@epa.gov with any questions, comments, or concerns.

Sincerely,

A handwritten signature in black ink that reads "Rachel Schmeltz". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

Rachel Schmeltz
ENERGY STAR Product Manager