



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

OFFICE OF
AIR AND RADIATION

September 22, 2016

Dear ENERGY STAR® Light Commercial HVAC Brand Owner or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) welcomes your input on the attached Draft 2 Version 3.0 ENERGY STAR Light Commercial Heating, Ventilation and Air-Conditioning (LC HVAC) specification. EPA plans to hold a stakeholder webinar on October 6, 2016 to discuss the Draft 2 specification in greater detail. Stakeholders are encouraged to submit comments on this draft proposal to EPA no later than October 19, 2016.

Background

The ENERGY STAR program helps businesses and individuals save money and protect the environment by identifying products that have superior energy efficiency. On January 1, 2017, new federal minimum standards established by the U.S. Department of Energy (DOE) go into effect for LC HVAC equipment rated less than 65,000 Btu/h. New standards for equipment rated greater than or equal to 65,000 Btu/h will be effective January 1, 2018. These levels are equal to, or more stringent than, current ENERGY STAR Version 2.2 specification levels. Further, a review of the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) certified product directory suggests a broad range of high-efficiency products are available that offer significant energy savings over standard-efficiency products.

Draft 2 Proposal

In this Draft 2 Version 3.0 specification for LC HVAC equipment rated greater than 65,000 Btu/h, EPA adjusted the proposal for Air Conditioner levels, which now aligns with the Consortium of Energy Efficiency (CEE) Tier 2. EPA also adjusted the proposal for Heat Pump levels, which now aligns with those suggested by AHRI after the release of Draft 1. Variable Refrigerant Flow (VRF) Multi-Split levels were re-assessed and reduced after assessing stakeholder feedback and completing additional analysis. The levels proposed in this Draft 2 allow for differentiation of the top performers of each category with reasonable payback.

Equipment rated below 65,000 Btu/h will not be included due to unfavorable payback periods. Some commenters supported their continued inclusion. EPA reached out to stakeholders for cost and energy data that would support their inclusion, but no such data was provided; thus, this product category is excluded in Draft 2.

Key elements of the Draft 2 specification include:

- **Definitions:** Several definitions have been updated to better align with 10 CFR part 431, Subpart F § 431.92. The definition for Basic Model has been updated to align with the separate DOE definitions for Commercial Package Air-Conditioning and Heating Equipment and Variable Refrigerant Flow Multi-Split.

- **Performance Criteria:** Revised levels are proposed for all product subcategories, including VRF Multi-Split systems, which better differentiate the top performers without being too stringent. In response to utility interest, especially in the Northern U.S., and in addition to eligibility criteria at 47 degrees F, EPA proposes the Coefficient of Performance (COP) at 17 degrees F as a performance requirement for all Heat Pumps. After the release of Draft 1, several stakeholders commented that this requirement would not impose significant additional burden.
- **Testing Requirements:** EPA is proposing to adopt the DOE test procedure for LC HVAC, 10 CFR Part 431 Subpart F § 431.96, for purposes of ENERGY STAR certification. Rounding requirements for IEER reporting align with ANSI/AHRI Standard 1230-2010 for VRF and AHRI Standard 340/360-2015 for Air Conditioners and Heat Pumps. New representative sampling options are also proposed that align with other ENERGY STAR HVAC product specifications. Several commenters were concerned about sampling language in the Draft 1 proposal and EPA agrees that a modification of our usual policy, as embodied in guidance to certification bodies on verification testing, is warranted.

More details regarding EPA's rationale for proposing these requirements are included in note boxes throughout the draft specification document.

Stakeholder Meeting

EPA will host a stakeholder webinar meeting on **October 6, 2016** to discuss the Draft 2 document and address stakeholder comments and questions. If you would like to participate, please register prior to the webinar [here](#). Stakeholders are encouraged to inform EPA of any industry events that may conflict with this proposed date.

Comment Submittal Process

Stakeholders are encouraged to provide written comments for EPA consideration to LCHVAC@energystar.gov by **October 19, 2016**. All comments will be posted to the ENERGY STAR Product Development website unless the submitter requests otherwise.

To track EPA's progress in revising the ENERGY STAR LC HVAC specification, visit the Product Development website at www.energystar.gov/revisedspecs and click on the Light Commercial Heating & Cooling "Version 3.0 is in development" link.

Please direct any specific questions to Abigail Daken at EPA, Daken.Abigail@epa.gov or 202-343-9375 and Jacob Bayus, ICF, at Jacob.Bayus@icf.com or 202-791-8871. Test method questions should be directed to Ashley Armstrong at DOE, Ashley.Armstrong@ee.doe.gov or 202-586-6590. Thank you for taking the time to review this draft specification. I look forward to working with you over the next few months.

Sincerely,



Abigail Daken
U.S. Environmental Protection Agency
ENERGY STAR HVAC Program