



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

OFFICE OF  
AIR AND RADIATION

May 12, 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 1 Version 3.0 ENERGY STAR Light Commercial HVAC (LC HVAC) specification. EPA plans to hold a stakeholder webinar on May 26, 2016 to discuss the Draft 1 specification in greater detail. Stakeholders are encouraged to submit comments on this draft proposal to EPA no later than June 9, 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 followed by new standards for equipment rated greater than or equal to 65,000 Btu/h 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 available that offer significant energy savings over standard-efficiency products.

**Draft 1 Proposal**

In this Draft 1 Version 3.0 specification, for LC HVAC equipment rated greater than 65,000 Btu/h, EPA proposes to align with the performance metrics and test procedure referenced in the DOE minimum efficiency standards, and set more stringent levels that represent the top performers currently available in the marketplace.

For equipment rated below 65,000 Btu/h, EPA's analysis indicates that while there are high efficiency options, the estimated cost differential compared to products meeting the DOE minimum efficiency standards results in an unfavorable payback to the end user. In light of this, EPA is proposing to limit the scope of the Version 3.0 specification to equipment rated above 65,000 Btu/h. Stakeholders are encouraged to provide feedback on this proposal and in particular, whether higher efficiency unit prices are expected to fall in response to the new DOE minimum standards.

Key elements of the Draft 1 specification include:

- **Energy Efficiency Metrics:** With the existing Version 2.2 specification, ENERGY STAR shifted to the new integrated energy efficiency ratio (IEER) metric but retained EER levels to align with the federal minimum standards in effect at that time. While the new DOE standards no longer include EER, EPA is proposing to retain the metric and levels in the

Version 3.0 specification, which continue to be of interest to utilities looking to address peak performance.

- **Performance Criteria:** Revised levels are proposed for all product subcategories and new, separate levels are introduced for variable refrigerant flow (VRF) multi-split systems that better differentiate the top performers within the subcategory. In response to utility interest, especially in the Northern U.S., and in addition to eligibility criteria at 47 degrees F, EPA proposes to require the reporting of Coefficient of Performance (COP) at 17 degrees F for all heat pump products.
- **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, including rounding requirements for IEER reporting. New representative sampling options are also proposed that align with other ENERGY STAR HVAC product specifications.

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

### **Stakeholder Meeting**

EPA plans to host a stakeholder webinar meeting on **May 26, 2016 from 11 am to 1 pm ET** to discuss the Draft 1 document and address initial stakeholder comments and questions. If you'd 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](mailto:LCHVAC@energystar.gov) by **June 9, 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](http://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](mailto:daken.abigail@epa.gov) or 202-343-9375 and Jacob Bayus, ICF International, at [jacob.bayus@icfi.com](mailto:jacob.bayus@icfi.com) or 202-791-8871. Test method questions should be directed to Ashley Armstrong at DOE, [ashley.armstrong@ee.doe.gov](mailto: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