

May 23, 2019

Ms. Abigail Daken  
Manger, ENERGY STAR HVAC Program  
United States Environmental Protection Agency  
Washington, DC 20460



*(Letter transmitted by email to CAC-ASHP@energystar.gov)*

**Re: Comments related to the Proposed ENERGY STAR Residential Central Air Conditioner (CAC) and Air Source Heat Pump (ASHP) Equipment Version 6.0 Draft 1**

Good day, Ms. Daken:

As a participant and an Industry Partner with the ENERGY STAR program for many years, Johnson Controls Inc. (JCI) recognizes and supports the value that these programs (ENERGY STAR and ENERGY STAR MOST EFFICIENT) provide to our customers, our consumers, our industry, and to our nation. Therefore, we are submitting these comments in response to the United States Environmental Protection Agency (EPA) ENERGY STAR Residential Air Source Heat Pump (ASHP) and Central Air Conditioner (CAC) Equipment Version 6.0 Draft 1, issued on April 23, 2019.

**Summary:**

Johnson Controls does not support the contents of the Version 6.0 Draft 1 as written. In participating in the public Stakeholder Meeting held on May 10, 2019, we found that the webinar did provide clarifying information on several points of concern that we have considered on this draft. But there are still a number of concerns that prevent us from supporting this draft now.

These concerns include the proposed timing of the implementation of V6.0 update, the need for a crossover test procedure (Percentage of Heating Capacity at 5 deg. F), the introduction of a new cold-climate performance metric, test conditions under Appendix M1 that do not exist today which results in a hybrid test procedure, a complex proposal for connectivity requirements and criteria for equipment that is not well defined, uncertainty in harmonization of US and Canadian

energy metrics and test procedures, inclusion of prescriptive requirements in the equipment specification, and finally the proposal for regionally specific labels to explain the benefits of the ENERGY STAR program to consumers.

With the complexity and timing of the proposed V6.0 version with the concerns noted above, there is a significant testing burden placed on equipment manufacturers, which is only increased with the upcoming industry changes we are facing at this time. Related to the January 1, 2023 new energy efficiency metrics for residential and commercial central air condition and heat pumps, we are already facing a tremendous amount of engineering design, testing, and implementation of new products. Adding in the industry's engineering burden related to implementing new mildly flammable refrigerants for certain states, the timing for an ENERGY STAR update with significant changes restricts the ability of original equipment manufacturers such as JCI to complete the required testing. That drives a decision of whether we would or could participate in ENERGY STAR programs in light of the other regulatory requirements.

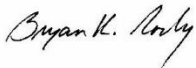
**Recommendations:**

- JCI continues to support the ENERGY STAR and the ENERGY STAR MOST EFFICIENT programs, and we understand that these programs must provide value and relevancy to our consumers. Therefore, we recommend no change to the current specification used today for consistency in the current market prior to January 1, 2023.
  
- We support the EPA using the new energy efficiency metrics (SEER2, EER2, HSPF2) that DOE requires after January 1, 2023, and recommend that the next specification using those metrics becomes effective at that same time. This allows time for discussions, harmonization activities with Canadian requirements, and inclusion of topics like the cold climate test procedures, use of the Appendix M1 test procedure, etc. within those new metrics.
  
- We do not support the proposed recommendation of a prescriptive requirement of at least two stages of capacity for systems/units to be recognized as ENERGY STAR certified when a strictly performance based criteria will provide the desired impacts in the future.

- We do not support the generation and use of a regionally-specific ENERGY STAR label that introduces a new approach for heat pumps which does not exist at a federal level today. A label design that is similar to the current FTC labels required will only cause confusion for customers and consumers who not easily understand what the label means.
- We do support that the EPA continue their discussion with AHRI related to the work the EPA has already put into the development and publication of the AHRI Standard 1380 (I-P/2019), *Demand Response through Variable Capacity HVAC Equipment in Residential and Small Commercial Applications*. We feel that now the standard has been published, the possibility of developing a certification program based on that standard is worth pursuing. Having a complete proposal from the EPA on connected equipment seems appropriate along with discussions about timing and certification for that next version of the ENERGY STAR specification, hopefully effective for January 1, 2023 as discussed above.

Thank you again for the opportunity to provide these written comments, and we look forward to any further discussions as needed on this topic. Please do not hesitate to contact either Chris Forth, Director of Regulatory, Codes and Standards ([chris.m.forth@jci.com](mailto:chris.m.forth@jci.com)) or myself ([bryan.rocky@jci.com](mailto:bryan.rocky@jci.com)) if you have any questions regarding this submission.

Respectfully,



Bryan K. Rocky

Director of Residential Technical Services, Ducted Systems, Johnson Controls, Inc.

cc: JCI - Chris Forth, Director of Regulatory, Codes and Standards  
JCI – Steven Tice, VP Engineering, Residential Ducted Systems  
JCI – Cynthia Sparrow, Director Product Management, Ducted Residential Products