



Lennox International Inc.
2140 Lake Park Boulevard
Richardson, Texas 75080-2254

Mailing Address:
P.O. Box 799900
Dallas, Texas 75379-9900

Telephone: 972.497.5000
Facsimile: 972.497.6668
LennoxInternational.com

David Winningham
Sr. Engineering Manager, Regulatory Affairs
Telephone: 803-738-4085

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

Submitted via e-mail: cacashp@energystar.gov

Re: EPA ENERGY STAR Program Requirements, Product Specifications for Central Air Conditioner and Heat Pump Equipment – Draft Version 6.1

Lennox International Inc. (Lennox) hereby submits comments on the *United States Environmental Protection Agency ENERGY STAR Program Requirements, Product Specifications for Central Air Conditioner and Heat Pump Equipment – Draft Version 6.1* as published by the EPA on November 1, 2021.

Lennox is a leading provider of climate-control solutions for heating, air conditioning, and refrigeration markets. Lennox is a publicly traded company that has thousands of employees, and it manufactures equipment addressed by the EPA ENERGY STAR Central Air Conditioner (CAC) and Air Source Heat Pump (ASHP) program criteria.

A. General Comments.

While Lennox appreciates the intent of the Draft Version 6.1, Lennox wishes to reiterate its position regarding ENERGY STAR 6.0 in general as detailed in prior comments submitted on November 19, 2020 and February 23, 2021 and provide further comment regarding Draft Version 6.1.

Lennox believes the EPA ENERGY STAR program can effectively promote increased energy efficiency. This can be accomplished by maintaining a program that is not burdensome to administer combined with *reasonable specifications for energy performance criteria that consider impacts to consumers, contractors, distributors and manufacturers*. Further, *the ENERGY STAR program should be nationally based* and work to unify energy program approaches across jurisdictions to increase the success of efficiency programs and avoid regional requirements which dilute program participation and effectiveness.

B. Specific Issues regarding the Draft Version 6.1 Proposal

Specific to the Draft Version 6.1 proposal, while Lennox understands the intent of the Draft to increase products available in the ENERGY STAR program, the Draft Version 6.1 continues to contain prescriptive Installation Capabilities which should be removed from the ENERGY STAR base levels. Further, Lennox finds the proposal to add significant complexity by adding

incremental performance and prescriptive levels which will confuse consumers as it does not draw clear performance lines to compare similar products. The proposal if finalized will be burdensome for manufacturers and the EPA to administer as there are not mechanisms in place to easily identify products which meet the proposed specification.

The EPA should base the primary criteria for the ENERGY STAR CAC and ASHP programs on the federally mandated energy efficiency metrics, be consistent across product similar types and agnostic of the technology employed. This will allow manufacturers to find the most innovative and cost-effective solutions for increased energy efficiency. The EPA should avoid additional prescriptive requirements which add cost and limit future innovation by driving manufacturers to meet a specification rather than finding the most effective solutions. This approach will promote products that perform above baseline efficiency levels and provide cost-effective energy savings to a broader base of consumers aligned with the ENERGY STAR Guiding Principles.

Lennox reiterates to ensure continued participation and success for the ENERGY STAR program, Lennox urges that EPA revise the ENERGY STAR specification per the following:

1. ***ENERGY STAR must avoid prescriptive requirements including the proposed Installation Criteria for all product types.***
2. ***ENERGY STAR performance criteria should be set at reasonable thresholds that average consumers can afford and aligned with ENERGY STAR's Guiding Principles and use DOE required metrics consistent across appropriate product types.***
3. ***AHRI 1380 should be the only requirement for optional connected criteria.***

Although Lennox produces many models that are rated as the most efficient CAC and ASHP products available in the market and supports the EPA ENERGY STAR efforts to recognize and promote highly efficient products, Lennox does not support the proposed Version 6.1 Draft specification.

1. ***ENERGY STAR must avoid prescriptive requirements including the proposed Installation Capabilities for all product types.***

Lennox understands EPA's proposal intention, and that it is largely based upon the current state of most premium variable speed products which have two-way communication integrated into those systems. Lennox fully supports quality installation of all HVAC equipment but believes this is a much broader issue than adding prescriptive requirements to a premium product category that is a small part of the total market. Lennox does not support the proposed prescriptive Installation Criteria as it will prescriptively force cost upon variable speed products in the ENERGY STAR program and not address the broader installation issues. The inclusion of this criteria for variable speed products will be an inhibitor to further innovation in variable speed technology by excluding products that may otherwise meet or exceed the ENERGY STAR performance criteria as well as offer enhanced consumer benefits. Installation requirements are currently included in the ENERGY STAR Most Efficient criteria where they are appropriate and supported by Lennox.

Lennox strongly urges the EPA to remove this requirement in Version 6.1 and set performance criteria at reasonable thresholds that average consumer can afford aligned with ENERGY STAR's Guiding Principles to encourage manufacturer and market participation. This approach will promote cost-effective products that perform above baseline efficiency levels and provide energy savings to a broader base of consumers aligned with ENERGY STAR Guiding Principles.

Further, the additional reporting and potential verification requirements required to support Installation Capability criteria significantly increases burden for both manufacturers and the EPA as there are not mechanisms in place to report or validate these requirements.

Lennox is continuously striving to ensure the installation integrity of our products throughout our dealer and distribution networks. Lennox understands there is significant improvement opportunities across the industry and stands ready to engage in discussion and actions which can impact a much broader base of products across the industry in effort to deliver expected performance to consumers.

2. ENERGY STAR performance criteria should be set at reasonable thresholds that average consumers can afford aligned with ENERGY STAR's Guiding Principles and use DOE required metrics consistent across appropriate product types.

Lennox believes the EPA ENERGY STAR program can effectively promote increased energy efficiency by maintaining a program that is not burdensome to administer combined with ***reasonable specifications for energy performance criteria*** that consider impacts to consumers, contractors, distributors and manufacturers.

The Draft Version 6.1 is proposing to set incremental performance and prescriptive thresholds by product type and technology employed. This is a significant departure from past approaches for CAC and ASHP products and will be complex and burdensome to verify and confusing to consumers who are looking to the ENERGY STAR program as a simple, performance-based criteria to aid in purchasing decisions.

For the ENERGY STAR program to be successful the base levels should be technology agnostic and promote measurable and verifiable efficiency improvements that are consistent across product categories. Lennox recommends that the EPA maintain a single set of performance criteria across appropriate products that provide similar function that will engage manufacturers and be easy for consumers to understand.

Lennox recommends that in addition to removing the prescriptive Installation requirements that it revise the performance criteria per the following;

- Maintain the EER performance levels for CAC's as specified in Table 1 of Version 6.0.
- Maintain the EER performance levels for ASHP's as specified in Table 2 of Version 6.0.

As stated previously Lennox recommends that the base ENERGY STAR levels should be technology agnostic and finds the EER levels in Version 6.0 to be appropriate for the various product types. It should be noted that the EER levels in Version 6.0 are the same as those in

Version 5.0. Lennox finds EER to be an important metric for consumers and utilities and maintaining these levels to be appropriate and equitable for all available technologies.

Lennox is participating in the DOE Cold Climate Heat Pump (CCHP) Challenge and recognizes the need to improve CCHP performance in a field representative and verifiable method. Lennox supports a base ENERGY STAR threshold for CCHP's while the technology to support the DOE CCHP Challenge is evolving and recommends the following;

- Maintain the EER and SEER performance levels as specified in Table 3 of Version 6.0.
- Establish the HSPF criteria for CCHP at 9.5 HSPF/8.1 HSPF2.

Lennox finds that EER is still an important consumer and utility metric and maintaining a reasonable EER performance level may broaden the future markets for CCHP products. Lennox recognizes that EER is less of a consideration for CCHP's but notes that the levels are significantly reduced from conventional ASHP EER levels. Further as the DOE CCHP Challenge HSPF2 criteria is 8.5, Lennox finds 8.1 HSPF2 to be a threshold that is reasonable and aligned with the ENERGY STAR Guiding Principles.

3. AHRI 1380 should be the only requirement for optional connected criteria.

Lennox supports AHRI 1380 standard for grid responsive systems (DR) and encourages the EPA to expand its current ENERGY STAR Communicating Thermostat Specification to recognize products that provide this capability beyond typical set-back DR approaches. The industry is working toward a Certification program for 1380 and this standard should be the only criteria for optional connected criteria.

In conclusion, Lennox recommends ENERGY STAR remove the prescriptive Installation Capability criteria and work with the industry to develop alternative means which can address quality installation in a broader manner. ENERGY STAR criteria should be performance based using DOE required metrics and performance criteria be nationally based and set at reasonable thresholds that average consumers can afford. ENERGY STAR base levels should be technology agnostic and promote measurable and verifiable efficiency improvements that are consistent across product categories. Lennox remains engaged to further the effort of the EPA regarding the ENERGY STAR program for CAC and ASHP products and is available for further discussion regarding.

Please feel free to contact us with any further questions.

Sincerely,



David Winningham
Sr. Engineering Manager, Regulatory Affairs
803-738-4085