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Abigail Daken
U.S. Environmental Protection Agency
Energy Star HVAC Program
Washington, DC 20460

Submitted via: LCHVAC@energystar.gov

**Re: Comments for Energy Star Light Commercial HVAC Draft 1
Version 3.0**

Lennox International Inc. (Lennox) hereby submits comments on the EPA Energy Star Light Commercial HVAC Draft 1, Version 3.0.

Lennox is a leading provider of climate control solutions for the heating, air conditioning, and refrigeration equipment markets. Lennox is a publicly-traded company and has thousands of employees, and manufactures equipment subject to the Energy Star Light Commercial HVAC program. Lennox appreciates the opportunity to work with EPA to develop reasonable, practical energy efficiency programs as part of EPA's Energy Star program.

In the HVAC market, there are many different programs which impact the sales of commercial air conditioning systems – Energy Star, Consortium for Energy Efficiency (CEE – Tier 1 & Tier 2), DOE minimum efficiency regulations, ASHRAE 90.1 2013 and IECC 2015 building code standards. All of these have their own unique requirements. The net result of these multiple programs is that they dilute the effectiveness of each program. Additionally, it adds to the burden on manufacturers and will ultimately drive up the cost to consumers.

We strongly encourage the team supporting the EPA Energy Star program to work with the manufacturers of HVAC systems in defining efficiency levels for the Version 3.0 program that reduce the unique requirements of these programs.

CEE, whose members are investor-owned or municipal utilities, state or provincial energy offices, government agencies, and nonutility program administrators, introduced their new Tier levels for light commercial energy efficiency incentives in

January 2016. These Tier levels were developed in multiple workshops and allowed HVAC manufacturers to participate in the establishment of the new incentive levels. Having one set of specifications that can be promoted by all efficiency programs in the US makes it easier for contractors, distributors, and manufacturers to engage and hence allows for a larger impact on the market.

Since Energy Star is proposing new efficiency requirements, it would be logical to adopt the recently developed CEE Tier levels for the new Energy Star program. This would allow better alignment between federal tax incentives and state, local and utility programs and make the combined programs more effective.

A. General Comments on the Energy Star Version 3.0 proposal.

Lennox participated in the Energy Star Light Commercial Workshop Webinar held May 26, 2016. We agree with the recommendations to define the program for cooling capacity ($\geq 65,000$ to $< 240,000$ btuh) for air-cooled, three-phase, split systems, packaged units and VRF multi-split products.

We understand the logic behind the draft proposal to use the 2023 DOE efficiency levels for Energy Star Version 3.0, but disagree with the proposal for a number of reasons.

1. This adds another variable for the industry to meet – and at this time, we are 7 years away from the implementation of these standards.
2. There are few products which meet these efficiency levels – and certainly no complete family of products in all tonnages available.
3. Utilities and state governments are utilizing the CEE Tier levels for their incentive programs – at efficiency levels which were developed with cooperation of the HVAC industry.

Lennox encourages EPA to adopt the new CEE Tier 2 for air cooled, three-phase, air conditioning split systems and packaged units. This would allow customers the opportunity to receive a complete family of Energy Star products – but would reduce the models that currently qualify for Energy Star 2.2.

We also encourage EPA to adopt CEE Tier 2 for split system and packaged heat pumps between 65,000 and 135,000 btuh. There is not a Tier 2 in the 135,000 to 240,000 range, so we would encourage the use of CEE Tier 1 for those products.

To our knowledge, at this time, there are no VRF manufacturers participating in the Energy Star program. We would like to participate, however prior to establishing an Energy Star level, we would encourage EPA to wait until DOE has established the new efficiency levels for these products (it is our understanding that DOE is planning a NOPR later this year for VRF products).

B. Webinar Questions – Slide 15

1. Will costs for more efficient products change quickly in response to DOE standards?

Meeting the new requirements will require the use of more costly high efficiency or higher technology components.

Yes, the cost will go up as a result of these efficiency levels – because of the cost of additional technology and/or the increase in cabinet size. It is unlikely that there will be a cost decrease because the volume is not predicted to increase – instead it is predicted to decrease with the introduction of the new efficiency levels defined in DOE 2023.

2. Future growth in this size category?

When you look at the historical trend of the industry sales of HVAC systems after a new regulation has been introduced, you will see a reduction in sales for the next few years. In some cases, we have not recovered to the level of sales that were sold prior to the regulation (essentially the new regulation and significant reduction in sales occurred in the same year and years following the regulation).

To summarize, Lennox has and will continue to support and promote Energy Star programs because the program provides energy saving benefits to all aspects of the market – from end user to utilities.

In reviewing the Energy Star Light Commercial Version 3.0, Draft 1, we would encourage EPA to adopt the new CEE Tier 2 Standards for commercial unitary air conditioning, 65,000 to 240,000 btuh, split systems and packaged units and gas/electric packaged units.

For commercial heat pumps (split systems and packaged units) in 65,000 to 135,000 adopt CEE Tier 2 and for the larger capacities, 135,000 to 240,000 btuh adopt CEE Tier 1.

For VRF multi-split systems, 65,000 to 240,000 btuh, we encourage EPA to delay developing the efficiency levels until after the upcoming rulemaking is completed – and reconvene the industry to discuss appropriate levels for Energy Star.

Thank you for your consideration and support.

Sincerely,

A handwritten signature in black ink that reads "Mike Ray". The signature is written in a cursive, flowing style.

Mike Ray
Director,
Commercial Rooftops
Lennox Commercial