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Ann Bailey
Director, ENERGY STAR
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Submitted via e-mail: MostEfficient@energystar.gov

Re: EPA ENERGY STAR Most Efficient 2022 and Proposed Recognition Criteria for 2023.

Lennox International Inc. (Lennox) hereby submits comments on the *United States Environmental Protection Agency (EPA) ENERGY STAR Most Efficient 2023 and Proposed Recognition Criteria for 2024* as published by the EPA on July 18, 2023.

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 Most Efficient program criteria.

A. General Comments.

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.

Lennox further supports ENERGY STAR Most Efficient criteria to promote highly efficient products and manufactures industry leading products in many categories. This is exemplified by being the first to demonstrate performance meeting the DOE Cold Climate Heat Pump Challenge announced in June 2022. Lennox recommends that the ENERGY STAR Most Efficient program identify and recognize the products which are the leading products in their respective product categories and not bias the program toward specific product types. As the nation works toward decarbonization, all viable electric, gas and alternative energy sources have a role to meet consumer needs at reasonable cost and the Most Efficient program should be used to identify the leading efficiency products in each category and foster innovation. While heat pumps are a leading technology in efforts to decarbonize, due to diversity of U.S. climates the most effective option may not be a one size fits all solution. In colder climates the heating load of residential buildings can be several times the cooling load requiring supplemental heat to maintain building temperature. Conversely in warmer areas of the U.S. where cooling is the predominate load consumers need affordable high efficiency cooling products. ENERGY STAR should recognize the leaders in each product categories which foster further innovation and may result in highly efficient hybrid, alternative fuel, or other solutions to meet these needs. Lennox is committed to reducing emissions through the development of highly efficient products and

throughout our supply chain and recommends the ENERGY STAR Most Efficient program focus on recognizing the most efficient products in each category which allows regional programs to be tailored to the specific climate and energy needs.

B. Specific Issues regarding the Proposed 2024 Most Efficient Criteria.

1. The ENERGY STAR Most Efficient 2024 Proposal has Backslid Significantly for Ductless Products.

Lennox strongly opposes the Most Efficient 2024 Proposal for Ductless Heat Pumps. While the EPA is proposing increased HSPF2 levels for Ductless Heat Pumps the SEER2 and EER2 levels proposed are a significant backslide from the 2023 levels. The levels for Ductless products are also below the levels set for Ducted products tilting the playing field in favor of Ducted versus Ductless products. The EER2 level proposed for Ductless Cold Climate Heat Pumps of 9.0 is 18% below the 2023 Most Efficient levels and are well below the values common for DOE minimum efficiency single stage Heat Pumps which generally range from 11.5 to 12.0 EER2.

It is also alarming that the EPA is proposing to maintain the EER2 level of 11.00 for similar Ducted Cold Climate Heat Pumps and SEER2 levels for Ducted products well above the proposed reduced levels for Ductless products. This creates a significant disparity between product types in favor of Ductless products. EPA should also note that it is becoming increasingly common for perceived Ductless Heat Pumps to also be rated with Ducted indoor products creating confusion as to which level products must meet to qualify for Most Efficient. EER2 levels of 9.0 will result in a significant increase in energy consumption in cooling operation near peak load conditions when cooling is needed most, and utilities need to manage peak loads. Lennox understands the arguments made by some of oversizing and part load operation but that does not disguise the fact that exceptionally low EER2 levels increase cooling mode energy consumption and clearly is not aligned with the intent of the ENERGY STAR Most Efficient category. Further the proposed SEER2 levels for Ductless Heat Pumps is a marginal 5% increase over the base ENERGY STAR levels. Ducted products are required to operate at increased static pressure and power associated. Logically the SEER2 and EER2 levels for Ductless products which operate at lower static pressures should be above that for Ducted products as found in the 2023 Most Efficient criteria.

Lennox strongly recommends that the EPA implement levels for SEER2 and EER2 that are comparable between Ducted and Ductless products and are representative of the Most Efficient products across both system types. Lennox finds no reason to set SEER2 or EER2 for Ductless products below the levels for Ducted products and due to the differences in operating static pressure should be set at levels above that for Ducted that account for these differences.

2. The ENERGY STAR Most Efficient Program should be Technology Neutral and promote Consumer Choice for the Most Efficient Products.

Lennox provided comments to the recent ENERGY STAR Residential Furnace and Central Air Conditioner Sunset Proposal and reiterates here that the Most Efficient should also

take a technology neutral position and maintain Central Air Conditioners in the program. The U.S. market has very diverse climates which drive differing needs for human comfort and safety. Fuel flexibility provides states and localities the opportunity to benefit from a wide range of energy efficient products that lowers energy usage and customers utility bills while ensuring consumers have choices in selecting the product that works best for their space heating and cooling needs. Promoting energy efficiency broadly in the near term will likely have a larger impact to reduce energy consumption and associated emissions rather than taking a one size fits all approach.

The U.S. market includes highly populated southern straight cool markets where there is little if any need for heat including south Florida, south Texas and southern California. These areas typically have significant cooling loads and hours of operation and are well served by Central Air Conditioning products and the EPA should continue to promote higher efficiency Air Conditioner products in the Most Efficient program which are lower cost than a comparable efficiency Heat Pump. Consumers should be able to choose the best product that suits their unique individual needs and continued ENERGY STAR recognition should encourage consideration of more efficient products that meet these needs.

In conclusion, Lennox strongly recommend that ENERGY STAR Most Efficient set similar performance levels for Ducted and Ductless products considering the differences in system operating static pressure. The EPA should not set performance levels for Ductless below the level for Ducted and should not set EER2 levels below the level found in minimally compliant products. Lennox further recommends that the Most Efficient program identify and recognize the products which are the leading products in their respective product categories and not bias the program toward specific product types. Lennox also recommend that the ENERGY STAR Most Efficient program take a technology neutral approach and continue to recognize Central Air Conditioners that can provide significant energy savings for consumers. Please feel free to contact us with any further questions regarding these comments.

Sincerely,



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