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Via E-Mail

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Re: LG Electronics USA, Inc.'s Comment for ENERGY STAR Residential Air Source Heat Pump and Central Air Conditioner Equipment Version 6.0 Discussion Guide

Dear Ms. Abigail Daken:

Thank you for giving us the opportunity to comment on the ENERGY STAR Residential Air Source Heat Pump and Central Air Conditioner Equipment Version 6.0 Discussion Guide.

LG Electronics USA, Inc., based in Englewood Cliffs, N.J., is the North American subsidiary of LG Electronics, Inc., a $55 billion global innovator in technology and manufacturing. In the United States, LG sells a wide range of innovative home appliances, home entertainment products, mobile phones, commercial displays, air conditioning systems, solar energy solutions and vehicle components. The "Life's Good" marketing theme encompasses how LG is dedicated to people's happiness by exceeding expectations today and tomorrow. LG is a 2018 ENERGY STAR® Partner of the Year-Sustained Excellence. www.LG.com.

Here at LG Electronics USA, we highly appreciate EPA's continuous efforts in creating and bringing value to businesses and consumers. The ENERGY STAR program has always been a high priority to our business here in the US and we are always open to discuss your concerns and questions.

The following are LG's comments on the ENERGY STAR Residential Air Source Heat Pump and Central Air Conditioner Equipment Version 6.0 Discussion Guide:

1. Is EER used to predict seasonal efficiency anywhere outside the U.S. Southwest region?

The EER should not be used to predict seasonal efficiency anywhere in the U.S. including the southwest region because there is no linear correlation between EER and SEER. Since there is no linear correlation between the two values, predicting the SEER with EER can lead to errors.

2. How widespread is the need to control peak load by incentivizing high EER systems?

The EER is not the proper criteria to incentivize for controlling peak load because the EER value is the only value regards to efficiency during the one hour term, which is a very short term, at a specific temperature condition. We recommend that the SEER and HSPF should be incentivized for controlling peak load.

3. Are there other opportunities a regional specification would present?

For air conditioners only, not including heat pumps, the specification should be updated based on DOE minimum efficiency values because DOE has different requirements for different regions.

4. EPA is aware of ongoing efforts to define northern climate heat pump performance and establish a test method, for instance the Northwest Energy Efficiency Alliance (NEEA) effort and work that the Canadian Standards Association (CSA) is doing with a Canadian utility. What are the relative advantages and disadvantages of those efforts, for instance repeatability, testing burden, and capturing real world effects? Should other methods of establishing this performance be considered?

We recommend that the current test method should be maintained because these kinds of efforts by NEEA and CSA could cause a burden for testing.

5. Would it be reasonable for products with DR capability to have lower EER requirement (aside from where needed for seasonal energy) than those without?

First, the DR function is a factor that will increase the product's cost for the consumer. Currently, we are not sure if the consumer will choose to own a product with DR function bearing the increased cost of the product. However, if the overall infrastructure of the DR system in the US is readily available then DR could be useful for the consumer and electricity provider. On the other hand, if the DR infrastructure is not ready we think that most consumers will not choose products with DR.

6. Are there any problems with relying on AHRI 1380 for demand responsiveness criteria?

No comment.

7. What value does connectivity bring to CAC/ASHP customers (aside from grid value)?

As you may know already, connectivity technology could bring value to the user by providing the user with great amounts of data and information that was not available to the user such as visualization of real-time power consumption.

8. How would one consider connectivity for products intended to work with a proprietary controller that is not part of the unit itself, but instead takes the place of a thermostat?

If the price of the proprietary controller is reasonable, consumers may think of it positively.

9. Would it be possible to establish parallel SEER2, EER2, and HSPF2 criteria?

We believe that it should not be rushed to consider the new DOE criteria. It is important to prepare for the new criteria in advance however, DOE's metrics should not be considered right now.

10. If so, would any manufacturers be interested in using this option?

No.

Thank you for considering LG's comments for ENERGY STAR Residential Air Source Heat Pump and Central Air Conditioner Equipment Version 6.0 Discussion Guide. We would be glad to further discuss this matter or provide further detail should you so request.

Respectfully Submitted,

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cc: Jacob Bayus, ICF (Jacob.Bayus@icf.com)