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Abigail Daken
ENERGY STAR Program
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
MC 6202A
Washington, DC 20460

February 26, 2021

Re : Energy Star Final Draft Version 4.0 Water Heater Specifications

Dear Miss Daken

Eco2 Systems LLC are the suppliers of the SANCO₂, Split system, CO₂ refrigerant, 4.5kw capacity Heat Pump Water Heater. Eco2 Systems LLC would like to provide these comments on the proposed Final Draft Version 4.0 Water Heater Specifications.

Eco2 welcomes and wholeheartedly supports the creation of a separate classification for Split System HPWH's.

The Split System HPWH is relatively new to the US Water Heater market but is used extensively in the rest of the world, so can play a large part in reducing the total energy use required for Water Heating across the US, along with providing installation flexibility for both new construction and retrofits alike.

The Split System HPWH can also be a factor for the adoption of low GWP refrigerants as demonstrated by the SANCO₂ unit sold by ECO2 Systems and it's unique use of R744 (CO₂) Refrigerant and it's GWP of 1, compared to 1430 for R134a used by other HPWH manufacturers.

However, based on the Draft specification Eco2 would request that Energy Star increase the minimum UEF value required for the Split System classification.

ECO2 is uniquely positioned to comment on this issue as we have designed and sold Split System HPWH's in the US for the last 6 years.





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Cont

Based on known design principles, capacities and efficiencies ECO2 would recommend an increase to the minimum UEF for Split System HPWH's to 2.6 from the proposed 2.2 Value.

ECO2 feels that this higher UEF value is more representative of the ethos of Energy Star certification where the higher performing and more efficient products are rewarded with the Energy Star instead of all products in a certain class being able to qualify.

We thank you for your consideration and we would be happy to provide data and further clarification on the technology and operation of the SANCO₂ Split System Heat Pump Water Heater.

Yours

A handwritten signature in blue ink, appearing to read "John Miles".

John Miles
Managing Director

