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February 15th, 2021

Ms. Tanja Crk
US Environmental Protection Agency
Ariel Rios Building 6202J
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Ms. Crk:

The Consortium for Energy Efficiency (CEE) respectfully submits the following comments in response to the ENERGY STAR Version 5.0 Commercial Refrigerators and Freezers Final Draft Specification, released by the Environmental Protection Agency (EPA) on January 19, 2022.

CEE is the binational organization of energy efficiency program administrators. Historically, the CEE Board of Directors determined to build a single brand for efficiency and elected to create standing for the ENERGY STAR® Program rather than advancing the name recognition of CEE or other endeavors that existed at that time. The ENERGY STAR Program adopted specifications supported by CEE and program administrators, providing the confidence that utility ratepayer programs needed to invest in incentives in association with ENERGY STAR. This was a conscious investment and contribution of equity and the sanctioned obligations of utility members that include responsibility for delivering safe, reliable, and affordable service. Today, the staff and membership of the Consortium continue to perform diligence relative to the ENERGY STAR brand promise and associated performance specifications, given the very serious obligations entrusted to US and Canadian utilities as well as others sanctioned with advancement of voluntary market transformation efforts.

CEE members are responsible for ratepayer-funded efficiency programs in 38 US states, the District of Columbia, and four Canadian provinces. In 2019, CEE members directed approximately 70% of the $9.3 billion in energy efficiency and demand response program expenditures in the two countries. These comments are offered in support of the local activities CEE members carry out to actively leverage the ENERGY STAR brand. CEE

consensus comments are offered in the spirit of strengthening ENERGY STAR®, so it may continue to serve as the national marketing platform for energy efficiency.

CEE highly values the role ENERGY STAR plays in differentiating energy efficient products and services that the CEE membership supports locally throughout the US and Canada. We appreciate the opportunity to provide these comments.

We Applaud EPA for Improving the Dataset and Support the Final Draft Criteria for Vertical Closed Solid Self-Contained Refrigerators and Freezers

In response to stakeholder comments on Draft 1, EPA cleaned up the dataset by removing equipment rated at its lowest application product temperature (LAPT). LAPT equipment is physically incapable of reaching the prescribed rating temperature or set point. Testing models at temperatures greater than the set point (0°F or 38°F) may provide an unfair advantage to them relative to models being tested at the rating set point, therefore LAPT equipment are not eligible for ENERGY STAR. EPA removed six LAPT vertical closed solid self-contained refrigerators (VCS.SC.M) models from the dataset. Proposed criteria for VCS.SC.M equipment are unchanged from draft 1.

EPA removed 80 LAPT models from the vertical closed self-contained freezer (VCS.SC.L) dataset, which prompted EPA to relax criteria such that approximately 23% of equipment would qualify. EPA proposes reverting back to Version 4.0 criteria for the $0 < V < 15$ and $15 \leq V < 30$ bins. Most of the LAPT models removed from the VCS.SC.L dataset were in volume bins $30 \leq V < 50$ and $50 \leq V$, and EPA revised criteria for these bins. Table 1 compares the version 4.0 and Version 5.0 final draft energy criteria.

Table 1. **Vertical Closed Solid-Door Self-Contained Freezer Energy Criteria**

Refrigerated Volume (ft^3)	Version 4		Version 5 Final Draft		
	Criteria	MDEC Range (kWh/day)	Criteria	MDEC Range (kWh/day)	Savings vs. Version 4
$0 < V < 15$	0.21V+0.9	1.110 to 4.048	0.21V+0.9	1.110 to 4.048	0%
$15 \leq V < 30$	0.12V+2.248	4.048 to 5.847	0.12V+2.248	4.048 to 5.847	0%
$30 \leq V < 50$	0.285V-2.703	5.847 to 11.544	0.2578V - 1.8864	5.847 to 11.001	0.0% to 4.7%
$50 \leq V$	0.142V+4.445	11.545 to 37.105	0.028V + 7.4	11 to 19.82	4.7% to 3.3%*

* The largest VCS.SC.L model in the dataset has a refrigerated volume of 112.99 ft3, so used as the upper end for MDEC.

Table 2. **Final Draft Vertical Closed Solid-Door Self-Contained Freezer Product Availability**

VCS.SC.L	Total Models in Data Set	Models Meeting Final Draft Criteria	Passing Rate
0 < V < 15	82	14	17%
15 ≤ V < 30	123	32	26%
30 ≤ V < 50	81	25	31%
50 ≤ V	60	12	20%

Table 2 shows analysis of the number of models and percent of models in the dataset that meet the final draft criteria. The overall pass rate for the VCS.SC.L category is 23%. According to the data pack, EPA estimates that the products meeting the revised VCS.SC.L criteria would have a payback of 1.7 years.

We find that the criteria are consistent with ENERGY STAR brand tenants of identifying approximately the top 25% energy efficient performers in the market, supporting customer choice, and providing a reasonable payback to the consumer. CEE supports the proposed criteria for VSC.SC.L equipment class.

We Reiterate our Request that EPA Revise Criteria to Emphasize Efficiency for products with a TDA less than 40 square feet

In response to Draft 1, CEE identified an opportunity to increase energy savings for SOC.SC.M for units with a total display area (TDA) of 20 square feet or greater to less than 40 square feet while still exceeding a 25% pass rate. We noted that the Draft 1 criteria for the TDA of 40 square feet or greater category was constraining the TDA of 20 square feet or greater to less than 40 square feet category. The draft 1 criteria for the TDA of 40 square feet or greater category aim to identify approximately the top 25% of efficient models and provide seamless transition from the middle size category. Given that the TDA of 40 square feet or greater category contains far fewer models than the two smaller TDA categories, and the opportunity to significantly increase the stringency of the criteria for the TDA of 20 square feet or greater to less than 40 square feet bin while still exceeding a 25% pass rate, we requested that EPA reevaluate the proposed criteria to emphasize efficiency for products with a TDA less than 40 square feet.

EPA did not adjust the SOC.SC.M criteria in the final draft on the basis that the pass rate for unique models is currently at 31%. EPA further states in the Comment Response Matrix, that "to have a seamless criteria transition from the 20 ≤ TDA < 40 bin to the 40 ≤ TDA bin, the 40 ≤ TDA bin criterion would also need to be adjusted, which would result in a threshold stringency that could severely limit selection of ENERGY STAR certified models in this category."

We acknowledge EPA's point that increasing the stringency of criteria for the 20 ≤ TDA < 40 bin while maintaining a seamless transition to the 40 ≤ TDA bin would require the 40 ≤ TDA bin criteria to be adjusted. We are not convinced that that adjusting the criteria would necessarily result in a threshold stringency that could severely limit selection of ENERGY STAR certified models in the 40 ≤ TDA bin. Filtering the data on the SOC.SC.M DOE Data worksheet for passing models in the 40 ≤ TDA bin shows that all the models in the 40 ≤ TDA bin that would meet the final draft criteria have daily energy consumption that is 2.69 kWh to 5.58 kWh, or 13.8% to 29.6%, below the proposed maximum allowable daily energy consumption, showing that there is room to increase the stringency while maintaining the current pass rate. The SOC.SC.M Chart shows two data points that appear to pass final draft criteria, at 42.07 TDA and 20.2 daily energy (DEC) and 43.94 TDA and 21.6 DEC, that in fact do not meet the criteria. EPA should emphasize efficiency in the 20 ≤ TDA < 40 bin even if it leads to a couple fewer models qualifying in the 40 ≤ TDA bin because the 20 ≤ TDA < 40 bin represents a much larger share of the market as shown in Table 3. We recommend that EPA revise criteria to emphasize efficiency for products in the 20 ≤ TDA < 40 square feet bin.

Table 3. **Final Draft 1 SOC.SC.M Product Availability**

Total Display Area (ft^2)	Models in Dataset (Brands)	Models passing (Brands)	% Passing
0 < TDA < 20	266 (24)	62 (12)	23%
20 ≤ TDA <40	295 (24)	108 (18)	36.6%
40 ≤ TDA	31 (5)	8 (2)	26.7%

We Support Proposed Chef Base Criteria

EPA relaxed final draft chef base criteria in response to stakeholder comments that the criteria were too stringent, and that the dataset contained models that were not chef bases. In the final draft, the allowable energy use criteria are .95 to 1.43 kW, or 38.6% to 198.6% higher than Draft 1. EPA estimates that the final draft criteria recognize the top 35% the market. CEE staff asked about the basis for this estimate given that 25 of 36, or 69%, of the CB.SC.M models in the dataset meet the final draft criteria. EPA responded via email that "the top 35% of the market is derived from multiplying the 69% pass rate by the estimated market representation of the dataset (i.e., 50%: we estimate that our dataset represents approximately half of the available chef base models in the market)." This is consistent with how EPA estimated market share in draft 1.

Given that this is a new category for which there is no federal minimum energy conservation standard, the limitations of the dataset, and that the change was in response to CEE members, we support the revised criteria.

CEE would once again like to thank the EPA for the opportunity to comment on the ENERGY STAR Version 5.0 Commercial Refrigerators and Freezers Final Draft Specification. Please contact CEE Senior Program Manager Bjorn Jensen at 617-337-9280 with any questions about these comments.

Sincerely,

Ed Wisniewski
Executive Director