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## DEPARTMENT OF ENERGY

### 10 CFR Part 430

[EERE-2017-BT-STD-0003]

RIN 1904-AF56

### Energy Conservation Program: Energy Conservation Standards for Refrigerators, Refrigerator-Freezers, and Freezers

**AGENCY:** Office of Energy Efficiency and Renewable Energy, Department of Energy.

**ACTION:** Direct final rule; confirmation of effective and compliance dates; technical correction.

**SUMMARY:** The U.S. Department of Energy (“DOE”) published a direct final rule to establish new energy conservation standards for refrigerators, refrigerator-freezers, and freezers in the **Federal Register** on January 17, 2024. DOE has determined that the comments received in response to the direct final rule do not provide a reasonable basis for withdrawing the direct final rule. Therefore, DOE provides this document confirming the effective and compliance dates of those standards. This document also corrects an error in the amended regulatory text as it appeared in the direct final rule published on January 17, 2024.

**DATES:** The technical correction in this document is effective June 13, 2024.

The effective date of May 16, 2024, for the direct final rule published January 17, 2024 (89 FR 3026) is confirmed. Compliance with the standards established in the direct final rule will be required on either January 31, 2029, or January 31, 2030, depending on product class.

**ADDRESSES:** The docket for this rulemaking, which includes **Federal Register** notices, public meeting attendee lists and transcripts, comments, and other supporting documents/materials, is available for review at [www.regulations.gov](http://www.regulations.gov). All

documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket web page can be found at [www.regulations.gov/docket/EERE-2017-BT-STD-0003](http://www.regulations.gov/docket/EERE-2017-BT-STD-0003). The docket web page contains instructions on how to access all documents, including public comments, in the docket.

For further information on how to submit a comment or review other public comments and the docket, contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by email: [ApplianceStandardsQuestions@ee.doe.gov](mailto:ApplianceStandardsQuestions@ee.doe.gov).

#### FOR FURTHER INFORMATION CONTACT:

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#### SUPPLEMENTARY INFORMATION:

##### I. Authority

The Energy Policy and Conservation Act, Public Law 94-163, as amended (“EPCA”),<sup>1</sup> authorizes DOE to issue a direct final rule establishing an energy conservation standard for a product on receipt of a statement submitted jointly by interested persons that are fairly representative of relevant points of view (including representatives of manufacturers of covered products, States, and efficiency advocates), as determined by the Secretary, that contains recommendations with respect to an energy or water conservation standard that are in accordance with the provisions of 42 U.S.C. 6295(o) or 42

<sup>1</sup> All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116-260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A-1 of EPCA.

U.S.C. 6313(a)(6)(B), as applicable. (42 U.S.C. 6295(p)(4))

The direct final rule must be published simultaneously with a notice of proposed rulemaking (“NOPR”) that proposes an energy or water conservation standard that is identical to the standard established in the direct final rule, and DOE must provide a public comment period of at least 110 days on this proposal. (42 U.S.C. 6295(p)(4)(A)–(B)) Not later than 120 days after issuance of the direct final rule, DOE shall withdraw the direct final rule if (1) DOE receives one or more adverse public comments relating to the direct final rule or any alternative joint recommendation; and (2) based on the rulemaking record relating to the direct final rule, DOE determines that such adverse public comments or alternative joint recommendation may provide a reasonable basis for withdrawing the direct final rule. (42 U.S.C. 6295(p)(4)(C)) If DOE makes such a determination, DOE must proceed with the NOPR published simultaneously with the direct final rule and publish in the **Federal Register** the reasons why the direct final rule was withdrawn. (*Id.*)

After review of comments received, DOE has determined that it did receive adverse comments on the direct final rule. However, based on the rulemaking record, the comments did not provide a reasonable basis for withdrawing the direct final rule under the provisions in 42 U.S.C. 6295(p)(4)(C). As such, DOE did not withdraw this direct final rule and allowed it to become effective. Although not required under EPCA, where DOE does not withdraw a direct final rule, DOE publishes a summary of the comments received during the 110-day comment period and its responses to those comments. This document contains such a summary, as well as DOE’s responses to the comments.

## II. Refrigerators, Refrigerator-Freezers, and Freezers Direct Final Rule

### A. Background

In a final rule published on September 15, 2011 (“September 2011 Final Rule”), DOE prescribed the current energy conservation standards for refrigerators, refrigerator-freezers, and freezers manufactured on and after September 15, 2014. 76 FR 57516. These standards are set forth in DOE’s regulations at 10 CFR 430.32(a).

On November 15, 2019, DOE published a request for information (“RFI”) to collect data and information to help DOE determine whether any new or amended standards for consumer refrigerators, refrigerator-freezers, and freezers would result in a significant amount of additional energy savings and whether those standards would be technologically feasible and economically justified. 84 FR 62470 (“November 2019 RFI”).

DOE then published a notice of public meeting and availability of the preliminary technical support document (“TSD”) on October 15, 2021 (“October 2021 Preliminary Analysis”). 86 FR 57378. DOE held a public meeting on December 1, 2021, to discuss and receive comments on the preliminary TSD. The preliminary TSD that

presented the methodology and results of the preliminary analysis is available at: [www.regulations.gov/document/EERE-2017-BT-STD-0003-0021](http://www.regulations.gov/document/EERE-2017-BT-STD-0003-0021).

On February 27, 2023, DOE published a NOPR and announced a public webinar to respond to initial comments (“February 2023 NOPR”). 88 FR 12452. In the February 2023 NOPR, DOE updated its analysis and proposed standards based on comments received following the publication of the October 2021 Preliminary Analysis. DOE held a public webinar on April 11, 2023, to discuss and receive comments on the February 2023 NOPR and February 2023 TSD. The February 2023 NOPR TSD is available at:

[www.regulations.gov/document/EERE-2017-BT-STD-0003-0045](http://www.regulations.gov/document/EERE-2017-BT-STD-0003-0045).

On September 25, 2023, DOE received a joint statement (*i.e.*, the Joint Agreement) recommending standards for refrigerators, refrigerator-freezers, and freezers that was submitted by groups representing manufacturers, energy and environmental advocates, consumer groups, and a utility.<sup>2</sup> In addition to the recommended standards for refrigerators, refrigerator-freezers, and freezers, the Joint Agreement also included separate recommendations for several other covered products.<sup>3</sup> The Joint Agreement recommended amended standard levels for refrigerators, refrigerator-freezers, and freezers as presented in Table II.1 as follows. Details of the Joint Agreement recommendations for other products are provided in the Joint Agreement posted in the docket.<sup>4</sup>

TABLE II.1—RECOMMENDED AMENDED ENERGY CONSERVATION STANDARDS FOR RESIDENTIAL REFRIGERATORS, REFRIGERATOR-FREEZERS, AND FREEZERS

Product class	Level (based on AV (ft <sup>3</sup> ))	Compliance date
1. Refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost.	6.79AV + 191.3	January 31, 2030.
1A. All-refrigerators—manual defrost	5.77AV + 164.6	January 31, 2030.
2. Refrigerator-freezers—partial automatic defrost	(6.79AV + 191.3) * K2	January 31, 2030.
3. Refrigerator-freezers—automatic defrost with top-mounted freezer	6.86AV + 198.6 + 28l	January 31, 2030.
3A. All-refrigerators—automatic defrost	(6.01AV + 171.4) * K3A	January 31, 2030.
4. Refrigerator-freezers—automatic defrost with side-mounted freezer	7.28AV + 254.9	January 31, 2030.
5. Refrigerator-freezers—automatic defrost with bottom-mounted freezer	(7.61AV +272.6) * K5 + 28l	January 31, 2030.
5A. Refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service.	(7.76AV + 351.9) * K5A	January 31, 2029.
6. Refrigerator-freezers—automatic defrost with top-mounted freezer with through-the-door ice service.	7.14AV + 280.0	January 31, 2030.
7. Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service.	(7.31AV + 322.5) * K7	January 31, 2030.
8. Upright freezers with manual defrost	5.57AV + 193.7	January 31, 2029.
9. Upright freezers with automatic defrost	7.33AV + 194.1 + 28l	January 31, 2030.
10. Chest freezers and all other freezers except compact freezers	7.29AV + 107.8	January 31, 2029.
10A. Chest freezers with automatic defrost	10.24AV + 148.1	January 31, 2029.
11. Compact refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost.	7.68AV + 214.5	January 31, 2029.
11A. Compact all-refrigerators—manual defrost	6.66AV + 186.2	January 31, 2029.
12. Compact refrigerator-freezers—partial automatic defrost	(5.32AV + 302.2) * K12	January 31, 2029.
13. Compact refrigerator-freezers—automatic defrost with top-mounted freezer	10.62AV + 305.3 + 28l	January 31, 2029.
13A. Compact all-refrigerators—automatic defrost	(8.25AV + 233.4) * K13A	January 31, 2029.
14. Compact refrigerator-freezers—automatic defrost with side-mounted freezer	6.14AV + 411.2 + 28l	January 31, 2029.
15. Compact refrigerator-freezers—automatic defrost with bottom-mounted freezer	10.62AV + 305.3 + 28l	January 31, 2029.
16. Compact upright freezers with manual defrost	7.35AV + 191.8	January 31, 2029.
17. Compact upright freezers with automatic defrost	9.15AV + 316.7	January 31, 2029.
18. Compact chest freezers	7.86AV + 107.8	January 31, 2029.
3-BI. Built-in refrigerator-freezer—automatic defrost with top-mounted freezer	8.24AV + 238.4 + 28l	January 31, 2029.
3A-BI. Built-in All-refrigerators—automatic defrost	(7.22AV + 205.7) * K3ABI	January 31, 2029.
4-BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer	8.79AV + 307.4 + 28l	January 31, 2029.
5-BI. Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer	(8.65AV + 309.9) * K5BI + 28l	January 31, 2029.

<sup>2</sup> The signatories to the Joint Agreement include Association of Home Appliance Manufacturers, American Council for an Energy-Efficient Economy, Alliance for Water Efficiency, Appliance Standards Awareness Project, Consumer Federation of America, Consumer Reports, Earthjustice, National Consumer Law Center, Natural Resources Defense Council, Northwest Energy Efficiency Alliance, and Pacific Gas and Electric Company. Members of AHAM’s Major Appliance Division that manufacture the affected products include: Alliance

Laundry Systems, LLC; Asko Appliances AB; Beko US Inc.; Brown Stove Works, Inc.; BSH; Danby Products, Ltd.; Electrolux Home Products, Inc.; Elicamex S.A. de C.V.; Faber; Fotile America; GEA, a Haier Company; L’Atelier Paris Haute Design LLG; LG Electronics USA; Liebherr USA, Co.; Midea America Corp.; Miele, Inc.; Panasonic Appliances Refrigeration Systems (PAPRSA) Corporation of America; Perlick Corporation; Samsung; Sharp Electronics Corporation; Smeg S.p.A; Sub-Zero

Group, Inc.; The Middle by Corporation; U-Line Corporation; Viking Range, LLC; and Whirlpool.

<sup>3</sup> The Joint Agreement contained recommendations for 6 covered products: refrigerators, refrigerator-freezers, and freezers; clothes washers; clothes dryers; dishwashers; cooking products; and miscellaneous refrigeration products.

<sup>4</sup> The term sheet is available in the docket at: [www.regulations.gov/document/EERE-2017-BT-STD-0003-0103](http://www.regulations.gov/document/EERE-2017-BT-STD-0003-0103).

TABLE II.1—RECOMMENDED AMENDED ENERGY CONSERVATION STANDARDS FOR RESIDENTIAL REFRIGERATORS, REFRIGERATOR-FREEZERS, AND FREEZERS—Continued

Product class	Level (based on AV (ft <sup>3</sup> ))	Compliance date
5A—BI. Built-in refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service.	(8.21AV + 370.7) * K5ABI .....	January 31, 2029.
7—BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer .....	(8.82AV + 384.1) * K7BI .....	January 31, 2029.
9—BI. Built-In Upright freezers with automatic defrost .....	9.37AV + 247.9 + 28l .....	January 31, 2029.
9A—BI. NEW PRODUCT CLASS: Upright built-in freezer w/auto defrost and through-door-ice.	9.86AV + 288.9 .....	January 31, 2029.

AV = Total adjusted volume, expressed in ft<sup>3</sup>, as determined in appendices A and B of subpart B of 10 CFR part 430.

av = Total adjusted volume, expressed in Liters.

l = 1 for a product with an automatic icemaker and = 0 for a product without an automatic icemaker. Door Coefficients (e.g., K3A) are as defined in Table I.2.

Door coefficient	Products with a transparent door	Products without a transparent door with a door-in-door	Products without a transparent door or door-in-door with added external doors
K2 .....	N/A	N/A	1 + 0.02 * (N <sub>d</sub> - 1).
K3A .....	1.10	N/A	N/A
K3ABI .....	1.10	N/A	N/A
K13A .....	1.10	N/A	N/A
K4 .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K4BI .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K5 .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K5BI .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K5A .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 3).
K5ABI .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 3).
K7 .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K7BI .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K9 .....	N/A	N/A	1 + 0.02 * (N <sub>d</sub> - 1).
K9BI .....	N/A	N/A	1 + 0.02 * (N <sub>d</sub> - 1).
K12 .....	N/A	N/A	1 + 0.02 * (N <sub>d</sub> - 1).

Note: N<sub>d</sub> is the number of external doors.

After carefully considering the recommended energy conservation standards for refrigerators, refrigerator-freezers, and freezers in the Joint Agreement, DOE determined that these recommendations were in accordance with the statutory requirements of 42 U.S.C. 6295(p)(4) for the issuance of a direct final rule and published a direct final rule on January 17, 2024 (“January 2024 Direct Final Rule”). 89 FR 3026. DOE evaluated whether the Joint Agreement satisfies 42 U.S.C. 6295(o),

as applicable, and found that the recommended standard levels would result in significant energy savings and are technologically feasible and economically justified. 89 FR 3026, 3100–3106. Accordingly, DOE adopted the consensus-recommended efficiency levels for refrigerators, refrigerator-freezers, and freezers as the new and amended standard levels in the January 2024 Direct Final Rule. 89 FR 3026, 3107–3108.

These standards, which are expressed as kWh/yr, apply to product classes listed in Table II.2 and Table II.3 and manufactured in, or imported into, the United States starting on January 31, 2029 or January 31, 2030, depending on product class. The January 2024 Direct Final Rule provides a detailed discussion of DOE’s analysis of the benefits and burdens of the new and amended standards pursuant to the criteria set forth in EPCA. 89 FR 3026, 3100–3106.

TABLE II.2—ENERGY CONSERVATION STANDARDS FOR CONSUMER REFRIGERATORS, REFRIGERATOR-FREEZERS, AND FREEZERS WITH CORRESPONDING DOOR COEFFICIENT TABLE

[Compliance starting January 31, 2029]

Product class (“PC”)	Equations for maximum energy use (kWh/yr)	
	Based on AV (ft <sup>3</sup> )	Based on av (L)
3—BI. Built-in refrigerator-freezer—automatic defrost with top-mounted freezer	8.24AV + 238.4 + 28l .....	0.291av + 238.4 + 28l.
3A—BI. Built-in All-refrigerators—automatic defrost .....	(7.22AV + 205.7) * K3ABI .....	(0.255av + 205.7) * K3ABI.
4—BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer.	(8.79AV + 307.4) * K4BI + 28l	(0.310av + 307.4) * K4BI + 28l.
5—BI. Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer.	(8.65AV + 309.9) * K5BI + 28l	(0.305av + 309.9) * K5BI + 28l.
5A. Refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service.	(7.76AV + 351.9) * K5A .....	(0.274av + 351.9) * K5A.
5A—BI. Built-in refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service.	(8.21AV + 370.7) * K5ABI .....	(0.290av + 370.7) * K5ABI.

TABLE II.2—ENERGY CONSERVATION STANDARDS FOR CONSUMER REFRIGERATORS, REFRIGERATOR-FREEZERS, AND FREEZERS WITH CORRESPONDING DOOR COEFFICIENT TABLE—Continued

[Compliance starting January 31, 2029]

Product class ("PC")	Equations for maximum energy use (kWh/yr)	
	Based on AV (ft <sup>3</sup> )	Based on av (L)
7-BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service..	$(8.82AV + 384.1) * K7BI$ .....	$(0.311av + 384.1) * K7BI$ .
8. Upright freezers with manual defrost .....	$5.57AV + 193.7$ .....	$0.197av + 193.7$ .
9-BI. Built-In Upright freezers with automatic defrost .....	$(9.37AV + 247.9) * K9BI + 28I$ .....	$(0.331av + 247.9) * K9BI + 28I$ .
9A-BI. Built-In Upright freezers with automatic defrost with through-the-door ice service.	$9.86AV + 288.9$ .....	$0.348av + 288.9$ .
10. Chest freezers and all other freezers except compact freezers .....	$7.29AV + 107.8$ .....	$0.257av + 107.8$ .
10A. Chest freezers with automatic defrost .....	$10.24AV + 148.1$ .....	$0.362av + 148.1$ .
11. Compact refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost.	$7.68AV + 214.5$ .....	$0.271av + 214.5$ .
11A. Compact all-refrigerators—manual defrost .....	$6.66AV + 186.2$ .....	$0.235av + 186.2$ .
12. Compact refrigerator-freezers—partial automatic defrost .....	$(5.32AV + 302.2) * K12$ .....	$(0.188av + 302.2) * K12$ .
13. Compact refrigerator-freezers—automatic defrost with top-mounted freezer	$10.62AV + 305.3 + 28I$ .....	$0.375av + 305.3 + 28I$ .
13A. Compact all-refrigerators—automatic defrost .....	$(8.25AV + 233.4) * K13A$ .....	$(0.291av + 233.4) * K13A$ .
14. Compact refrigerator-freezers—automatic defrost with side-mounted freezer.	$6.14AV + 411.2 + 28I$ .....	$0.217av + 411.2 + 28I$ .
15. Compact refrigerator-freezers—automatic defrost with bottom-mounted freezer.	$10.62AV + 305.3 + 28I$ .....	$0.375av + 305.3 + 28I$ .
16. Compact upright freezers with manual defrost .....	$7.35AV + 191.8$ .....	$0.260av + 191.8$ .
17. Compact upright freezers with automatic defrost .....	$9.15AV + 316.7$ .....	$0.323av + 316.7$ .
18. Compact chest freezers .....	$7.86AV + 107.8$ .....	$0.278av + 107.8$ .

AV = Total adjusted volume, expressed in ft<sup>3</sup>, as determined in appendices A and B of subpart B of 10 CFR part 430.

av = Total adjusted volume, expressed in Liters.

I = 1 for a product with an automatic icemaker and = 0 for a product without an automatic icemaker.

Door Coefficients (e.g., K3ABI) are as defined in the following table

Door coefficient	Products with a transparent door	Products without a transparent door with a door-in-door	Products without a transparent door or door-in-door with added external doors
K3ABI .....	1.10	1.0	1.0
K4BI .....	1.10	1.06	$1 + 0.02 * (N_d - 2)$ .
K5BI .....	1.10	1.06	$1 + 0.02 * (N_d - 2)$ .
K5A .....	1.10	1.06	$1 + 0.02 * (N_d - 3)$ .
K5ABI .....	1.10	1.06	$1 + 0.02 * (N_d - 3)$ .
K7BI .....	1.10	1.06	$1 + 0.02 * (N_d - 2)$ .
K9BI .....	1.0	1.0	$1 + 0.02 * (N_d - 1)$ .
K12 .....	1.0	1.0	$1 + 0.02 * (N_d - 1)$ .
K13A .....	1.10	1.0	1.0

**Notes:**

<sup>1</sup> N<sub>d</sub> is the number of external doors.

<sup>2</sup> The maximum N<sub>d</sub> values are 2 for K12, 3 for K9BI, and 5 for all other K values.

TABLE II.3 ENERGY CONSERVATION STANDARDS FOR CONSUMER REFRIGERATORS, REFRIGERATOR-FREEZERS, AND FREEZERS WITH CORRESPONDING DOOR COEFFICIENT TABLE

[Compliance starting January 31, 2030]

Product class	Equations for maximum energy use (kWh/yr)	
	Based on AV (ft <sup>3</sup> )	Based on av (L)
1. Refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost.	$6.79AV + 191.3$ .....	$0.240av + 191.3$ .
1A. All-refrigerators—manual defrost .....	$5.77AV + 164.6$ .....	$0.204av + 164.6$ .
2. Refrigerator-freezers—partial automatic defrost .....	$(6.79AV + 191.3) * K2$ .....	$(0.240av + 191.3) * K2$ .
3. Refrigerator-freezers—automatic defrost with top-mounted freezer .....	$6.86AV + 198.6 + 28I$ .....	$0.242av + 198.6 + 28I$ .
3A. All-refrigerators—automatic defrost .....	$(6.01AV + 171.4) * K3A$ .....	$(0.212av + 171.4) * K3A$ .
4. Refrigerator-freezers—automatic defrost with side-mounted freezer .....	$(7.28AV + 254.9) * K4 + 28I$ ..	$(0.257av + 254.9) * K4 + 28I$ .
5. Refrigerator-freezers—automatic defrost with bottom-mounted freezer .....	$(7.61AV + 272.6) * K5 + 28I$ ..	$(0.269av + 272.6) * K5 + 28I$ .
6. Refrigerator-freezers—automatic defrost with top-mounted freezer with through-the-door ice service.	$7.14AV + 280.0$ .....	$0.252av + 280.0$ .

TABLE II.3 ENERGY CONSERVATION STANDARDS FOR CONSUMER REFRIGERATORS, REFRIGERATOR-FREEZERS, AND FREEZERS WITH CORRESPONDING DOOR COEFFICIENT TABLE—Continued

[Compliance starting January 31, 2030]

Product class	Equations for maximum energy use (kWh/yr)	
	Based on AV (ft <sup>3</sup> )	Based on av (L)
7. Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service.	$(7.31AV + 322.5) * K7$ .....	$(0.258av + 322.5) * K7$ .
9. Upright freezers with automatic defrost .....	$(7.33AV + 194.1) * K9 + 28l$ ...	$(0.259av + 194.1) * K9 + 28l$ .

AV = Total adjusted volume, expressed in ft<sup>3</sup>, as determined in appendices A and B of subpart B of 10 CFR part 430.  
 av = Total adjusted volume, expressed in Liters.  
 l = 1 for a product with an automatic icemaker and = 0 for a product without an automatic icemaker.  
 Door Coefficients (e.g., K3A) are as defined in the following table.

Door coefficient	Products with a transparent door	Products without a transparent door with a door-in-door	Products without a transparent door or door-in-door with added external doors
K2 .....	1.0	1.0	$1 + 0.02 * (N_d - 1)$ .
K4 .....	1.10	1.06	$1 + 0.02 * (N_d - 2)$ .
K3A .....	1.10	1.0	1.0
K5 .....	1.10	1.06	$1 + 0.02 * (N_d - 2)$ .
K7 .....	1.10	1.06	$1 + 0.02 * (N_d - 2)$ .
K9 .....	1.0	1.0	$1 + 0.02 * (N_d - 1)$ .

**Notes:**  
 1  $N_d$  is the number of external doors.  
 2 The maximum  $N_d$  values are 2 for K2, and 5 for all other K values.

As required by EPCA, DOE also simultaneously published a NOPR proposing the identical standard levels contained in the January 2024 Direct Final Rule. 89 FR 2886. DOE considered whether any adverse comment received during the 110-day comment period following the publication of the January 2024 Direct Final Rule provided a reasonable basis for withdrawal of the

direct final rule under the provisions in 42 U.S.C. 6295(p)(4)(C).

**III. Comments on the Direct Final Rule**

As discussed in section I of this document, not later than 120 days after publication of a direct final rule, DOE shall withdraw the direct final rule if (1) DOE receives one or more adverse public comments relating to the direct final rule or any alternative joint recommendation; and (2) based on the

rulemaking record relating to the direct final rule, DOE determines that such adverse public comments or alternative joint recommendation may provide a reasonable basis for withdrawing the direct final rule. (42 U.S.C. 6295(p)(4)(C)(i))

DOE received comments in response to the January 2024 Direct Final Rule from the interested parties listed in Table III.1.

TABLE III.1—LIST OF COMMENTERS WITH WRITTEN SUBMISSIONS IN RESPONSE TO THE JANUARY 2024 DIRECT FINAL RULE

Commenter(s)	Abbreviation	Comment No. in the docket	Commenter type
Anonymous .....	Anonymous .....	117–120	Individual.
Association of Home Appliance Manufacturers (AHAM), Appliance Standards Awareness Project (ASAP), et al.	Joint Commenters .....	121	Manufacturers, Energy and Environmental Advocates, Consumer Groups, and a Utility.
Montana Office of the Attorney General .....	AG of Montana .....	122	State Attorney General.
State of Tennessee Office of the Attorney General	State AGs .....	123	State Attorney General.

A parenthetical reference at the end of a comment quotation or paraphrase provides the location of the item in the public record.<sup>5</sup> The following sections

discuss the substantive comments DOE received on the January 2024 Direct Final Rule as well as DOE’s determination that the comments do not provide a reasonable basis for withdrawal of the direct final rule.

*A. General Comments*

In comments submitted in response to the January 2024 Direct Final Rule, the Joint Commenters, consisting of the parties who submitted the Joint Agreement, supported the standard levels specified in the January 2024 Direct Final Rule as the standards align with those levels recommended in the Joint Agreement. (Joint Commenters,

<sup>5</sup> The parenthetical reference provides a reference for information located in the docket of DOE’s rulemaking to develop energy conservation standards for air cleaners. (Docket No. EERE–2017–BT–STD–0003, which is maintained at [www.regulations.gov](http://www.regulations.gov)). The references are arranged

as follows: (commenter name, comment docket ID number, page of that document).

No. 121 at p. 2) The Joint Commenters also agreed with DOE's findings that the standards in the January 2024 Direct Final Rule meet EPCA's requirements of being the maximum levels that are technologically feasible and economically justified, taking into account the criteria set forth in 42 U.S.C. 6295(o). (*Id.* at pp. 2–3) The Joint Commenters stated that the Joint Agreement was submitted by a group of stakeholders with fairly representative points of view. (*Id.* at p. 4)

DOE also received comments from numerous individual commenters who expressed support for the standards proposed in the DFR. (Anonymous, No. 117 at p. 1; Anonymous, No. 118 at p. 1; Anonymous, No. 119 at p. 1; Anonymous, No. 120 at p. 1)

The State AGs and the AG of Montana submitted comments opposing the January 2024 Direct Final Rule. (AG of Montana, No. 122, pp. 1–5; State AGs, No. 123 at pp. 2–10) However, as discussed in more detail below, DOE has determined that these comments do not provide a reasonable basis to withdraw the January 2024 Direct Final Rule.

#### *B. Responses to Previous Stakeholder Comments*

The State AGs stated their belief that comments from AHAM and General Electric in response to the February 2023 NOPR had gone unanswered in the January 2024 Direct Final Rule, specifically those concerning DOE's supply chain analysis, component availability, and economic impacts on consumers, particularly low-income households, which leaves consumers to bear the brunt of regulatory pressure on manufacturers. (State AGs, No. 123 at pp. 2–3)

In response to the comment from the State AGs that DOE did not respond in the January 2024 Direct Final Rule to the comments submitted by signatories to the Joint Agreement and other stakeholders in response to the February 2023 NOPR, DOE notes that the commenter misunderstands DOE's direct final rule authority under EPCA. As discussed in the January 2024 Direct Final Rule, DOE was conducting a rulemaking to consider amending the standards for refrigerators, refrigerator-freezers, and freezers when the Joint Agreement was submitted. *Id.* at 89 FR 3037. After receiving the Joint Agreement, DOE initiated a separate rulemaking action and subsequently issued the January 2024 Direct Final Rule after determining that the recommendations contained in the Joint Agreement were compliant with 42 U.S.C. 6295(o). *Id.* at 89 FR 3027. The

January 2024 Direct Final Rule is a separate rulemaking, conducted under a different statutory authority, from DOE's prior rulemaking in the February 2023 NOPR and DOE has no obligation to consider comments submitted in response to that prior rulemaking in a different rulemaking.

Even though DOE was not required to consider comments from the February 2023 NOPR, DOE did in fact consider comments, data and information obtained through the February 2023 NOPR. This included the issues that the State AGs asserted DOE ignored in the January 2024 Direct Final Rule. In the January 2024 Direct Final Rule, DOE specifically addressed concerns related to supply chains and component availability for vacuum-insulated panels ("VIPs") and variable-speed compressors ("VSCs") by conducting a supply chain analysis. 89 FR 3026, 3049–3051. Based on information provided by relevant manufacturers of VSCs, DOE believes that significant increases in VSCs in the U.S. market aligned with the standard levels adopted in the January 2024 Direct Final Rule are well within the production capacity of the compressor industry. And based on the information gathered from relevant VIP manufacturers, DOE expects that VIP production lines can be quickly scaled up to meet demand of future amended standards within 1 to 2 years depending on the specific VIP design), well within lead time between publication of amended standards and the compliance date for those standards. DOE also notes that the longer 5 and 6-year lead time between publication of the January 2024 Direct Final Rule and the compliance date provides more time to build production capacity than the 3-year lead time proposed in the February 2023 NOPR.

Additionally, in the January 2024 Direct Final Rule, DOE considered the impact on low-income households by performing a life-cycle-cost subgroup analysis for low-income households. *Id.* at 89 FR 3064–3065. Notably, consistent with Joint Agreement, in the January 2024 Direct Final Rule DOE adopted a lower standard level for product class 7 (side-by-side refrigerators, used by 19 percent of low-income households) than the level proposed in the February 2023 NOPR. DOE estimated that the lower standard level would result in 0.6% of low-income households experiencing a net cost due to the standard, compared with 23% at the proposed level in the February 2023 NOPR. The adopted standard level for product class 7 in the January 2024 Direct Final Rule also reduced the estimated incremental increase in purchase price to \$24.39,

compared with \$100.28 at the proposed standard level in the February 2023 NOPR.

#### *C. Stakeholder Representation*

Under 42 U.S.C. 6295(p)(4), interested persons that are fairly representative of relevant points of view (including representatives of manufacturers of covered products, States, and efficiency advocates), as determined by DOE, may submit a joint recommendation to the Department for new or amended energy conservation standards. The State AGs commented that the parties to the Joint Agreement are not "fairly representative of relevant points of view" as required when considering a direct final rule. (State AGs, No. 123 at pp. 4–5) The State AGs stated that many of the groups represented by AHAM, who signed the Joint Agreement, submitted comments prior to the submission of the Joint Agreement and those comments were not addressed in the Joint Agreement or the January 2024 Direct Final Rule. (*Id.* at p. 3). The State AGs further stated their belief that AHAM and manufacturers who previously opposed the February 2023 NOPR but now joined in the consensus agreement did so due to agency "arm-twisting." (*Id.* at 5).

The State AGs pointed to the other signatories of the Joint Agreement, including advocacy groups such as the Alliance for Water Efficiency, Earthjustice, Northwest Energy Efficiency Alliance, Natural Resources Defense Council, and National Consumer Law Center, as either lacking the relevant expertise on consumer refrigeration products, lacking expertise or failing to consider initial consumer or manufacturer costs, or failing to conduct their own analysis. (*Id.* at p. 4) Additionally, the State AGs noted that many of these groups failed to address concerns raised during the regulatory process in their sponsorship of the Joint Agreement. (*Id.* at p. 5)

The State AGs commented that other groups, although not a part of the Joint Agreement, provided comments on the February 2023 NOPR with regards to the proposed standards' impact on the consumers. (*Id.* at pp. 5–6) The State AGs stated that groups such as the National Apartment Association and National Multifamily Housing Council expressed concerns about the February 2023 NOPR's impact on consumer welfare in the form of increased costs and economic burdens to low-income consumers. (*Id.* at p. 6) Additionally, the State AGs stated that many states besides those party to the Joint Agreement (*i.e.*, Massachusetts, New York, and California) expressed concern about consumer welfare. (*Id.*) The State

AGs contended that a joint statement comprising of fairly representative points of view requires the concurrence of States across the ideological spectrum for DOE to proceed with a direct final rule. (*Id.*)

The AG of Montana agreed with the comment from the State AGs and commented that the signatories of the Joint Agreement were a skewed collection of ideological extremists. (AG of Montana, No. 122 at p. 1)

In response to the comments regarding whether the Joint Agreement was submitted by persons fairly representative of relevant points of view, DOE reiterates that 42 U.S.C. 6295(p)(4) reads, in relevant part, “[o]n receipt of a statement that is submitted jointly by interested persons that are fairly representative of relevant points of view (including representatives of manufacturers of covered products, States, and efficiency advocates), as determined by the Secretary . . .” (42 U.S.C. 6295(p))

As stated in the January 2024 Direct Final Rule, DOE determined that this requirement was met. 89 FR 3026, 3038. The Joint Agreement included a trade association, AHAM, which represents 20 manufacturers of the subject covered products—refrigerators, refrigerator-freezers, and freezers. *Id.* The Joint Agreement also included environmental and energy-efficiency advocacy organizations, consumer advocacy organizations, and a gas and electric utility company. *Id.* Additionally, DOE received a letter in support of the Joint Agreement from the States of New York, California, and Massachusetts (see comment No. 104). *Id.* DOE also received a letter in support of the Joint Agreement from the gas and electric utility, San Diego Gas and Electric, and the electric utility, Southern California Edison (see comment No. 107). *Id.* Each of the listed categories of persons described in 42 U.S.C. 6295(p)(4) supported the Joint Agreement.

DOE has ample authority to accept a joint statement in these circumstances. EPCA does not require that the Joint Agreement be representative of every point of view. Nor does it require that a statement be submitted by all interested persons. Rather, it requires a statement from a sufficient number and diversity of “interested persons” such that the statement is “fairly representative of relevant points of view.” The Joint Agreement presented here is such a statement, as the Secretary determined.

Contrary to the commenters’ suggestion, EPCA does not include any requirement that “relevant points of view” must include politically opposite

points of view. Rather, EPCA ensures a diversity of opinions and interests by requiring that joint agreements be submitted by relevant points of view, including representatives of manufacturers, States, and efficiency advocates. (42 U.S.C. 6295(p)(4)(A))

Moreover, regardless of whether amended energy conservation standards are recommended as part of a joint agreement or proposed by DOE, the standards have to satisfy the same criteria in 42 U.S.C. 6295(o). Thus, once DOE has determined that a joint agreement was submitted by interested persons that are fairly representative of relevant points of view, DOE then determines whether the joint agreement satisfies the relevant statutory criteria. As a result, in evaluating whether comments provide a reasonable basis for withdrawing a direct final rule, it is the substance of the comments, not the number of stakeholders that submit statements in favor of, or opposed to, the joint agreement, that determines whether a rule should be withdrawn.

Similarly, EPCA does not require that DOE reject a joint statement merely because non-signatories have differing opinions and interests than the signatories. Nor does EPCA require that every manufacturer, industry association, or state who submitted comments on the separate February 2023 NOPR be party to the Joint Agreement. (State AGs, No. 123 at pp. 6). Finally, there is nothing in this provision of EPCA to support the interpretation from the State AGs and the AG of Montana that interested persons who did not raise concerns about a separate rulemaking or who opposed a separate rulemaking should be excluded from submitting a joint statement.

DOE also finds meritless the contention that the Joint Agreement parties are not competent to present a statement for purposes of section 6295(p). Contrary to the characterizations by the State AGs and Montana AG, the parties to the Joint Agreement have an established historical record of participation in DOE rulemakings and have submitted detailed comments in the past that demonstrate a thorough understanding of technical, legal, and economic aspects of appliance standards rulemakings, including factors affecting specific groups such as low-income households.

In a follow-up letter from the parties to the Joint Agreement, each organization provided a brief description of its background. American Council for an Energy-Efficient Economy is a nonprofit research

organization and its independent analysis advances investments, programs, and behaviors that use energy more effectively and help build an equitable clean energy future. Alliance for Water Efficiency is a nonprofit dedicated to efficiency and sustainable use of water that provides a forum for collaboration around policy, information sharing, research, education, and stakeholder engagement. Appliance Standards Awareness Project organizes and leads a broad-based coalition effort that works to advance new appliance, equipment, and lighting standards that cut emissions that contribute to climate change and other environmental and public health harms, save water, and reduce economic and environmental burdens for low- and moderate-income households. AHAM represents more than 150 member companies that manufacture 90% of the major, portable and floor care appliances shipped for sale in the U.S. The Consumer Federation of America is an association of more than 250 nonprofit consumer and cooperative groups that advances the consumer interest through research, advocacy, and education. Consumer Reports is a mission-driven, independent, nonprofit member organization that empowers and informs consumers, incentivize corporations to act responsibly, and helps policymakers prioritize the rights and interests of consumers in order to shape a truly consumer-driven marketplace. Earthjustice is a nonprofit public interest environmental law organization advocating to advance clean energy and combat climate change. National Consumer Law Center supports consumer justice and economic security for low-income and other disadvantaged people in the U.S. through its expertise in policy analysis and advocacy, publications, litigation, expert witness services, and training. National Resources Defense Council is an international nonprofit environmental organization with expertise from lawyers, scientists, and other environmental specialists. The Northwest Energy Efficiency Alliance is a collaboration of 140 utilities and efficiency organizations working together to advance energy efficiency in the Northwest on behalf of more than 13 million consumers. PG&E represents one of the largest combined gas and electric utilities in the Western U.S., serving over 16 million customers across northern and central California.<sup>6</sup>

<sup>6</sup> This document is available in the docket at: [www.regulations.gov/document/EERE-2017-BT-STD-0003-0105](http://www.regulations.gov/document/EERE-2017-BT-STD-0003-0105).

Finally, DOE notes that it had no role in requesting that the parties to the Joint Agreement submit the Joint Agreement or in negotiating the terms of the Joint Agreement. As noted in the Joint Agreement itself, the parties accepted the Agreement based on the totality of the agreement. DOE's participation was limited to evaluating the joint submission under the criteria set forth in 42 U.S.C. 6295(p).

Therefore, DOE reaffirms its determination that the Joint Agreement was submitted by interested persons that are fairly representative of relevant points of view.

#### D. Formal Rulemaking

The State AGs commented that, given the previous comments submitted in response to February 2023 NOPR, DOE should use its direct final rule authority with caution and must return to a formal rulemaking in order to ensure the representation of diverse viewpoints and address all concerns raised during the rulemaking process. (State AGs, No. 123 at pp. 7–10)

In response, DOE notes that there is nothing in EPCA that limits DOE's direct final rule authority other than that the statement containing recommended standards must be submitted jointly by interested persons that are fairly representative of relevant points of view and that DOE must evaluate whether the recommended standards are in accordance with 42 U.S.C. 6295(o). (See 42 U.S.C. 6295(p)(4)) In the January 2024 Direct Final Rule, DOE determined that Joint Agreement was submitted jointly by interested persons that are fairly representative of relevant points of view and the adopted energy conservation standards as recommended in the Joint Agreement would result in significant energy savings and are technologically feasible and economically justified as required under 42 U.S.C. 6295(o) and provided supporting analysis. 89 FR 3026, 3038, 3078–3109.

Additionally, DOE notes it followed the procedures in 42 U.S.C. 6295(p)(4) to publish a direct final rule in the **Federal Register** simultaneously with a NOPR proposing identical standards and allow 110 days for public comment. See 89 FR 3026; 89 FR 2886. This comment period provided an ample opportunity for the public to express their views on the recommended standards. Finally, DOE has met all the requirements under its direct rule authority and, therefore, formal rulemaking procedures are not

necessary.<sup>7</sup> Therefore, DOE has determined that the comment provided by the State AGs does not provide a reasonable basis for withdrawal of the January 2024 Direct Final Rule.

#### E. Consumer Preference

The AG of Montana stated that DOE acknowledges consumer preference but disregards it in the January 2024 Direct Final Rule. (AG of Montana, No. 122, p. 2)

With respect to the comment from the AG of Montana, DOE did not disregard consumer preference but rather noted in the January 2024 Direct Final Rule that the economics literature provides a wide-ranging discussion of how consumers trade off upfront costs and energy savings in the absence of government intervention. 89 FR 3026, 3101. Much of this literature attempts to explain why consumers appear to undervalue energy efficiency improvements, as the AG of Montana alleged in his comment. There is evidence that consumers undervalue future energy savings as a result of (1) a lack of information; (2) a lack of sufficient salience of the long-term or aggregate benefits; (3) a lack of sufficient savings to warrant delaying or altering purchases; (4) excessive focus on the short term, in the form of inconsistent weighting of future energy cost savings relative to available returns on other investments; (5) computational or other difficulties associated with the evaluation of relevant tradeoffs; and (6) a divergence in incentives (for example, between renters and owners, or builders and purchasers). *Id.* Having less than perfect foresight and a high degree of uncertainty about the future, consumers may trade off these types of investments at a higher than expected rate between current consumption and uncertain future energy cost savings. *Id.*

Potential changes in the benefits and costs associated with a standard due to changes in consumer purchase decisions were included in the analysis for the January 2024 Direct Final Rule in two ways. *Id.* First, if consumers forgo the purchase of a product in the standards case, as estimated based on price elasticity based on empirical data on appliances, this decreases sales for product manufacturers, and the impact on manufacturers attributed to lost revenue is included in the manufacturer impact analysis. *Id.* Second, DOE accounts for energy savings attributable only to products actually used by

<sup>7</sup> DOE utilizes informal or legislative rulemaking when it promulgates rules under EPCA (*i.e.*, notice and comment rulemaking under the Administrative Procedure Act, 5 U.S.C. 553).

consumers in the standards case; if a standard decreases the number of products purchased by consumers, this decreases the potential energy savings from an energy conservation standard. *Id.*

Therefore, the January 2024 Direct Final Rule did take into account consumer purchase decisions in its analysis, and DOE has determined that the comment provided by the AG of Montana does not provide a reasonable basis for withdrawal of the January 2024 Direct Final Rule.

#### F. Monetization of Greenhouse Gas Emissions

The AG of Montana stated his belief that greenhouse gas emissions and climate change impacts should not be part of EPCA rulemakings, but given their inclusion, DOE must consider them throughout the entire lifecycle of the product, including manufacturing and potential reductions in lifespan due to increased complexity. (AG of Montana, No. 122 at p. 3) The AG of Montana commented that the January 2024 Direct Final Rule failed to adequately address these full lifecycle impacts. (*Id.*)

In response and as stated in the January 2024 Direct Final Rule, DOE notes that it would have reached the same conclusion that the adopted standard levels were economically justified without considering the social cost of greenhouse gases. 89 FR 3026, 3072.

Nevertheless, DOE notes also that the comment from the AG of Montana points to a statement made to the U.S. Senate Subcommittee on Energy to indicate that 40 to 60 percent of the carbon footprint for many consumer products can be attributed to the supply chain.<sup>8</sup> This statement cites a McKinsey report, which clarifies that this 40 to 60 percent refers to the fraction of a manufacturing company's energy and carbon footprint that can reside upstream in its supply chain.<sup>9</sup> However, it does not include the energy and emissions associated with the usage phase of the appliance lifecycle, which represents more than 90 percent of the total for refrigerators.<sup>10 11</sup> In the January

<sup>8</sup> <https://www.energy.senate.gov/services/files/3D26FA56-F102-9E9F-BEAA-52BB0085B19A>.

<sup>9</sup> C. Brickman and D. Ungerman, "Climate Change and Supply Chain Management," McKinsey Quarterly, July 2008.

<sup>10</sup> Kim, Hyung Chul, Keoleian, Gregory A. and Horie, Yuhta A., (2006), Optimal household refrigerator replacement policy for life cycle energy, greenhouse gas emissions, and cost, Energy Policy, 34, issue 15, p. 2310–2323.

<sup>11</sup> Gonzalez A., Chase A., Energy Solutions. Horowitz N. ACEEE Summer Study on Energy Efficiency in Buildings. 2012. What We Know and



2024 Direct Final Rule, DOE accounted for the environmental and public health benefits associated with the more efficient use of energy, including those connected to global climate change, as they are important to take into account when considering the need for national energy conservation. (See 42 U.S.C. 6295(o)(2)(B)(i)(IV)) *Id.* This analysis focused on the estimated reduced emissions expected to result during lifetime of refrigerators, refrigerator freezers, and freezers shipped during the projection period. *Id.* at 89 FR 3071.

As a result, DOE has determined that the comment provided by the AG of Montana does not provide a reasonable basis for withdrawal of the January 2024 Direct Final Rule.

### G. Efficiency and Reliability

The AG of Montana commented that DOE has dismissed comments regarding the increase in appliance complexity and its impact on reliability when considering the implementation of higher efficiency standards in the January 2024 Direct Final Rule. (AG of Montana, No. 122 at p. 4) The AG of Montana noted that increased energy efficiency in appliances during the use phase often leads to increased complexity, decreased robustness of components, and reduced engineering margins, as outlined in reliability engineering principles. (*Id.*) As a result of this increased complexity, AG of Montana stated that the mean time between failures and mean time to failure decreases, while the also reducing the economic viability of repair. (*Id.* at p. 5)

Review of refrigerator reliability information and the most reliable brands provides no indication that higher efficiency products are less reliable. The most common refrigerator reliability issues are cited as icemakers and dispensers,<sup>12 13</sup> which are not associated with design options identified for efficiency improvement in DOE's analysis. While refrigeration system issues have been identified as requiring service calls, *e.g.* lack of cooling, poor control of cooling, etc., no available information has correlated prevalence of these service issues with efficiency-improving design options such as variable-speed compressors. While one company's linear compressor has been cited as a reliability issue, this

company made design changes to improve reliability and reduce service calls.<sup>14</sup> Hence, notwithstanding conjecture that more-efficient products may experience a decrease in reliability, The AG of Montana has not provided, nor has DOE found, any evidence that more-efficient refrigerators, refrigerator-freezers, and freezers are less reliable. Therefore, DOE has determined that the comment provided by the AG of Montana does not provide a reasonable basis for withdrawal of the January 2024 Direct Final Rule.

### H. EPCA Requirements

The State AGs commented that DOE should reevaluate the benefits and burdens of its rules under the factors listed in 42 U.S.C. 6295(o)(2)(B)(i)(I), (II), and (IV) (State AGs, No. 123 at pp. 7–8)

In response, in the January 2024 Direct Final Rule, DOE evaluated the benefits and burden of the standard level it ultimately adopted. 89 FR 3078–3109 DOE estimated that the adopted standards would save an estimated 5.61 quads of energy, an amount DOE considers significant. DOE estimated that the cumulative net present value (“NPV”) of consumer benefit of the adopted standard would be \$9.04 billion using a discount rate of 7 percent, and \$26.98 billion using a discount rate of 3 percent.

DOE estimated that the cumulative emissions reductions at the adopted standard are 101 Mt of carbon dioxide (“CO<sub>2</sub>”), 31.6 thousand tons of sulfur dioxide (“SO<sub>2</sub>”), 186 thousand tons of nitrogen oxides (“NO<sub>x</sub>”), 0.22 tons of mercury (“Hg”), 846.5 thousand tons of methane (“CH<sub>4</sub>”), and 0.99 thousand tons of nitrous oxide (“N<sub>2</sub>O”). DOE estimated the monetary value of the climate benefits from reduced greenhouse gases (“GHG”) emissions (associated with the average social cost of GHG (“SC–GHG”) at a 3-percent discount rate) from the adopted standard is \$5.02 billion. DOE estimated the monetary value of the health benefits from reduced SO<sub>2</sub> and NO<sub>x</sub> emissions from the adopted standard is \$3.45 billion using a 7-percent discount rate and \$9.80 billion using a 3-percent discount rate.

Using a 7-percent discount rate for consumer benefits and costs, health benefits from reduced SO<sub>2</sub> and NO<sub>x</sub> emissions, and the 3-percent discount rate case for climate benefits from reduced GHG emissions, DOE estimated the total NPV from the adopted standard

is \$17.51 billion. Using a 3-percent discount rate for all benefits and costs, DOE estimated the total NPV from the adopted standard is \$441.80 billion. DOE noted that the estimated total NPV is provided for additional information, however DOE primarily relies upon the NPV of consumer benefits when determining whether a standard level is economically justified.

For the largest product classes, which are 3 (top-mount refrigerator-freezers), 5 (bottom-mount refrigerator-freezers), 5A (bottom-mount refrigerator-freezers with through-the-door-ice service), and 7 (side-by-side refrigerator-freezers with through the door ice service), DOE estimated that the adopted standards would result in a life-cycle cost savings of \$50.91, \$55.23, \$133.27, and \$142.56 and a payback period of 4.8 years, 5.6 years, 4.1 years and 1.6 years, respectively. For these product classes, DOE estimated the fraction of customers experiencing a net LCC cost would be 28.3 percent, 33.6 percent, 19.8 percent and 0.5 percent with increases in first cost of \$47.67, \$62.72, \$81.32, and \$24.39, respectively. Overall, DOE estimated that 24.4 percent of refrigerators, refrigerator-freezers, and freezers consumers would experience a net cost and the average LCC savings are positive for all product classes.

As a result of the adopted standard, DOE estimated that 9 percent of low-income households with a top-mount or single-door refrigerator-freezer (represented by PC 3 and used by 72 percent of low-income households) and 0.6 percent of low-income households with a side-by-side refrigerator-freezer (represented by PC 7 and used by 19 percent of low-income households) would experience a net cost. Additionally, DOE noted that the incremental increase in purchase price is \$24.39 for low-income PC 7 homeowners at the adopted standard level, substantially lower than the incremental increase in purchase price of \$121.58 at higher considered standard levels.

As a result of the adopted standard, DOE estimated that the projected change in industry net present value (“INPV”) ranges from a decrease of \$504.4 million to a decrease of \$383.5 million, which correspond to decreases of 10.3 percent and 7.8 percent, respectively. DOE estimated that industry must invest \$830.3 million comply with standards set at the Recommended TSL. DOE estimated that approximately 14 percent of refrigerator, refrigerator-freezer, and freezer annual shipments meet the Recommended TSL efficiencies.

Compared to higher considered standard levels, DOE noted that more

Don't Know about Embodied Energy and Greenhouse Gases for Electronics, Appliances, and Light Bulbs.

<sup>12</sup> <https://atlantaappliancesrepair.net/most-reliable-refrigerators-brands/>.

<sup>13</sup> <https://www.consumerreports.org/appliances/refrigerators/most-and-least-reliable-refrigerator-brands-a8271265835/>.

<sup>14</sup> <https://prudentreviews.com/reliable-refrigerator-brands/#Results-From-Yale-Appliance-Annual-Refrigerator-Reliability-Report>.

manufacturers offer standard-size refrigerator freezer products that meet the required efficiencies since PC 7 has a lower required efficiency level at the adopted standard level. For PC 7, which accounts for 11 percent of shipments, three OEMs offer products that meet the efficiency level required by the adopted standard level. Furthermore, DOE does not expect manufacturers would need to incorporate VIPs into PC 7 designs to meet the efficiencies required at the adopted standard level. For PC 5 and PC 5A, DOE noted that it understands the two product classes often share the same production lines, with shared cabinet architecture and tooling. DOE expects manufacturers would likely need to incorporate some VIPs into PC 5A designs, but not to the extent required at higher considered standard levels. Thus, for the 10 OEMs that manufacture both PC 5 and PC 5A, DOE expects that manufacturers could implement similar cabinet upgrades (*i.e.*, partial VIP) for PC 5 and PC 5A designs to achieve the efficiencies required by the adopted standard.

DOE’s analysis of the benefits and burden of the adopted standard level utilized the January 31, 2029 (or January 31, 2030, for some product classes) compliance dates specified in the Joint Agreement as they were an integral part of the multi-product joint recommendation. These compliance dates provide manufacturers the flexibility to spread capital requirements, engineering resources, and other conversion activities over a longer period of time depending on the individual needs of each manufacturer. Furthermore, these delayed compliance dates provide additional lead time and certainty for suppliers of components that improve efficiency. The adopted standard mitigates risks raised by AHAM and multiple manufacturers in response to the February 2023 NOPR

regarding the ability for VSC and VIP component suppliers to increase supply of these key components in the 3-year lead time required by EPCA.

After considering the analysis and weighing the benefits and burdens, the Secretary concluded that the adopted standard for refrigerators, refrigerator-freezers, and freezers was economically justified. At this standard level, DOE estimated that the average LCC savings were positive for all product classes for which an amended standard was considered. An estimated 24.4 percent of all refrigerator, refrigerator-freezer, and freezer consumers would experience a net cost. An estimated 9 percent of low-income households with a top-mount or single-door refrigerator-freezer (represented by PC 3 and used by 72 percent of low-income households) and 0.6 percent of low-income households with a side-by-side refrigerator-freezer (represented by PC 7 and used by 19 percent of low-income households), would experience a net cost, which is a significantly lower percentage than under higher considered standard levels. DOE noted that for low-income PC 7 consumers, as well as across all PC 7 consumers, the adopted standard level represents the largest average LCC savings of any considered standard level. The full-fuel cycle (“FFC”) national energy savings are significant and the NPV of consumer benefits is positive at the adopted standard level using both a 3-percent and 7-percent discount rate. Notably, DOE found that the benefits to consumers would vastly outweigh the cost to manufacturers. At the adopted standard level, DOE estimated the NPV of consumer benefits, even measured at the more conservative discount rate of 7 percent is over 17 times higher than the maximum estimated manufacturers’ loss in INPV. DOE found the adopted standard levels were economically

justified even without weighing the estimated monetary value of emissions reductions. When those emissions reductions were included—representing \$5.02 billion in climate benefits (associated with the average SC-GHG at a 3-percent discount rate), and \$9.80 billion (using a 3-percent discount rate) or \$3.45 billion (using a 7-percent discount rate) in health benefits—the rationale became stronger still.

In summary, DOE determined that the adopted energy conservation standards as recommended in the Joint Agreement would result in significant energy savings and are technologically feasible and economically justified as required under 42 U.S.C. 6295(o) and provided supporting analysis. 89 FR 3026, 3078–3109. DOE notes that the State AGs did not provide any specific comments on the benefits and burdens of the adopted standards beyond emissions, and as noted previously, DOE would have reached the same conclusion that the adopted standard levels were economically justified without considering the social cost of greenhouse gases. DOE has determined that the comment provided by the State AGs does not provide a reasonable basis for withdrawal of the January 2024 Direct Final Rule.

*I. Product Class Definitions*

In response to the January 2024 Direct Final Rule, Joint Commenters pointed out that the description of product class 7–BI as listed in Table 2 to Paragraph (a)(2) of the January 2024 Direct Final Rule (pg. 3315) and the subsequent updates to the regulatory text in 10 CFR 430.32 include a typographical error. (Joint Commenters, No. 121 at p. 4) This original description of product class 7–BI from the DFR as well as the corrected version as amended in this confirmation document are shown in Table III.2.

TABLE III.2—PRODUCT CLASS DESCRIPTION CORRECTION

Product class	Description as stated in the DFR	Correct description (correction in bold)
7–BI .....	Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer.	Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer <b>with through-the-door ice service.</b>

DOE acknowledges that the description as currently found in the January 2024 Direct Final Rule inadvertently left off part of the definition for product class 7–BI. In correcting the description of product class 7–BI in this confirmation document, DOE is aligning the product class description with the intent of the January 2024 Direct Final Rule as well

as the description found in previous rulemakings. Specifically, DOE notes that Table 1 to Paragraph (a)(1) of the January 2024 Direct Final Rule (pg. 3314), which lists the standards adopted in 2014, lists the correct description for product class 7–BI. Because this amendment is a clarifying correction and makes no substantive changes to the January 2024 Direct Final Rule, the

changes addressed in this document are technical in nature.

DOE has concluded that the determinations made pursuant to the various procedural requirements applicable to the January 2024 Direct Final Rule remain unchanged for this final rule technical correction. These determinations are set forth in the

January 2024 Direct Final Rule. 89 FR 3026.

Pursuant to the Administrative Procedure Act, 5 U.S.C. 553(b)(3)(B), DOE finds that there is good cause to not issue a separate notice to solicit public comment on the changes contained in this document. Issuing a separate notice to solicit public comment would be impracticable, unnecessary, and contrary to the public interest. Neither the errors nor the corrections in this document affect the substance of the January 2024 Direct Final Rule or any of the conclusions reached in support of the direct final rule. Providing prior notice and an opportunity for public comment on correcting objective, typographical errors that do not change the substance of the test procedure serves no useful purpose.

Further, this rule correcting a regulatory text error makes non-substantive changes to the test procedure. As such, this rule is not subject to the 30-day delay in effective date requirement of 5 U.S.C. 553(d) otherwise applicable to rules that make substantive changes.

#### *J. Impact of Any Lessening of Competition*

EPCA directs DOE to consider any lessening of competition that is likely to result from new or amended standards. (42 U.S.C. 629(p)(4)(A)(i) and (C)(i)(II); 42 U.S.C. 6295(o)(2)(B)(i)(V)) It also directs the Attorney General of the United States (“Attorney General”) to determine the impact, if any, of any lessening of competition likely to result from a proposed standard and to transmit such determination to the Secretary within 60 days of the publication of a proposed rule, together with an analysis of the nature and extent of the impact. (42 U.S.C. 6295(o)(2)(B)(i)(V) and (B)(ii)) To assist the Attorney General in making this determination, DOE provided the Department of Justice (“DOJ”) with copies of the January 2024 Direct Final Rule, the corresponding NOPR, and the January 2024 Direct Final Rule TSD for review. DOE has published DOJ’s comments at the end of this document.

In its letter responding to DOE, DOJ concluded that, based on its review, the proposed energy conservation standards

for refrigerators, refrigerator-freezers, and freezers are unlikely to have a significant adverse impact on competition.

#### **IV. Review Under the National Environmental Policy Act of 1969**

Pursuant to the National Environmental Policy Act of 1969 (“NEPA”), DOE had analyzed the direct final rule in accordance with NEPA and DOE’s NEPA implementing regulations (10 CFR part 1021). DOE has determined that this rule qualifies for categorical exclusion under 10 CFR part 1021, subpart D, appendix B5.1 because it is a rulemaking that establishes energy conservation standards for consumer products or industrial equipment, none of the exceptions identified in B5.1(b) apply, no extraordinary circumstances exist that require further environmental analysis, and it meets the requirements for application of a categorical exclusion. See 10 CFR 1021.410. Therefore, DOE has determined that promulgation of this direct final rule is not a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA and does not require an environmental assessment or an environmental impact statement.

#### **V. Conclusion**

In summary, based on the previous discussion, DOE has determined that the comments received in response to the direct final rule for new energy conservation standards for refrigerators, refrigerator-freezers, and freezers do not provide a reasonable basis for withdrawal of the direct final rule. As a result, the energy conservation standards set forth in the direct final rule became effective on May 16, 2024. Compliance with these standards is required on and after January 31, 2029, or January 31, 2030, depending on product class.

#### **Signing Authority**

This document of the Department of Energy was signed on June 7, 2024, by Jeffrey Marootian, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is

maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on June 7, 2024.

**Treena V. Garrett,**

*Federal Register Liaison Officer, U.S. Department of Energy.*

For the reasons set forth in the preamble, DOE amends part 430 of chapter II, subchapter D, of title 10 of the Code of Federal Regulations, by making the following technical correction:

#### **PART 430—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS**

■ 1. The authority citation for part 430 continues to read as follows:

**Authority:** 42 U.S.C. 6291–6309; 28 U.S.C. 2461 note.

■ 2. Amend § 430.32 by revising paragraph (a) to read as follows:

#### **§ 430.32 Energy and water conservation standards and their compliance dates.**

\* \* \* \* \*

(a) *Refrigerators/refrigerator-freezers/freezers.* These standards do not apply to refrigerators and refrigerator-freezers with total refrigerated volume exceeding 39 cubic feet (1104 liters) or freezers with total refrigerated volume exceeding 30 cubic feet (850 liters). The energy standards as determined by the equations of the following table(s) shall be rounded off to the nearest kWh per year. If the equation calculation is halfway between the nearest two kWh per year values, the standard shall be rounded up to the higher of these values.

(1) The following standards apply to products manufactured on or before September 15, 2014, and before the 2029/2030 compliance dates depending on product class (see paragraphs (a)(2) and (3) of this section).

TABLE 1 TO PARAGRAPH (a)(1)

Product class	Equations for maximum energy use (kWh/yr)	
	based on AV (ft <sup>3</sup> )	based on av (L)
1. Refrigerators and refrigerator-freezers with manual defrost .....	7.99AV + 225.0 .....	0.282av + 225.0.
1A. All-refrigerators—manual defrost .....	6.79AV + 193.6 .....	0.240av + 193.6.
2. Refrigerator-freezers—partial automatic defrost .....	7.99AV + 225.0 .....	0.282av + 225.0.
3. Refrigerator-freezers—automatic defrost with top-mounted freezer without an automatic icemaker.	8.07AV + 233.7 .....	0.285av + 233.7.
3–BI. Built-in refrigerator-freezer—automatic defrost with top-mounted freezer without an automatic icemaker.	9.15AV + 264.9 .....	0.323av + 264.9.
3I. Refrigerator-freezers—automatic defrost with top-mounted freezer with an automatic icemaker without through-the-door ice service.	8.07AV + 317.7 .....	0.285av + 317.7.
3I–BI. Built-in refrigerator-freezers—automatic defrost with top-mounted freezer with an automatic icemaker without through-the-door ice service.	9.15AV + 348.9 .....	0.323av + 348.9.
3A. All-refrigerators—automatic defrost .....	7.07AV + 201.6 .....	0.250av + 201.6.
3A–BI. Built-in All-refrigerators—automatic defrost .....	8.02AV + 228.5 .....	0.283av + 228.5.
4. Refrigerator-freezers—automatic defrost with side-mounted freezer without an automatic icemaker.	8.51AV + 297.8 .....	0.301av + 297.8.
4–BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer without an automatic icemaker.	10.22AV + 357.4 .....	0.361av + 357.4.
4I. Refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker without through-the-door ice service.	8.51AV + 381.8 .....	0.301av + 381.8.
4I–BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker without through-the-door ice service.	10.22AV + 441.4.2 ..	0.361av + 441.4.
5. Refrigerator-freezers—automatic defrost with bottom-mounted freezer without an automatic icemaker.	8.85AV + 317.0 .....	0.312av + 317.0.
5–BI. Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer without an automatic icemaker.	9.40AV + 336.9 .....	0.332av + 336.9.
5I. Refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker without through-the-door ice service.	8.85AV + 401.0 .....	0.312av + 401.0.
5I–BI. Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker without through-the-door ice service.	9.40AV + 420.9 .....	0.332av + 420.9.
5A. Refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service.	9.25AV + 475.4 .....	0.327av + 475.4.
5A–BI. Built-in refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service.	9.83AV + 499.9 .....	0.347av + 499.9.
6. Refrigerator-freezers—automatic defrost with top-mounted freezer with through-the-door ice service.	8.40AV + 385.4 .....	0.297av + 385.4.
7. Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service.	8.54AV + 432.8 .....	0.302av + 431.1.
7–BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service.	10.25AV + 502.6 .....	0.362av + 502.6.
8. Upright freezers with manual defrost .....	5.57AV + 193.7 .....	0.197av + 193.7.
9. Upright freezers with automatic defrost without an automatic icemaker .....	8.62AV + 228.3 .....	0.305av + 228.3.
9I. Upright freezers with automatic defrost with an automatic icemaker .....	8.62AV + 312.3 .....	0.305av + 312.3.
9–BI. Built-In Upright freezers with automatic defrost without an automatic icemaker .....	9.86AV + 260.9 .....	0.348av + 260.6.
9I–BI. Built-In Upright freezers with automatic defrost with an automatic icemaker .....	9.86AV + 344.9 .....	0.348av + 344.9.
10. Chest freezers and all other freezers except compact freezers .....	7.29AV + 107.8 .....	0.257av + 107.8.
10A. Chest freezers with automatic defrost .....	10.24AV + 148.1 .....	0.362av + 148.1.
11. Compact refrigerators and refrigerator-freezers with manual defrost .....	9.03AV + 252.3 .....	0.319av + 252.3.
11A. Compact refrigerators and refrigerator-freezers with manual defrost .....	7.84AV + 219.1 .....	0.277av + 219.1.
12. Compact refrigerator-freezers—partial automatic defrost .....	5.91AV + 335.8 .....	0.209av + 335.8.
13. Compact refrigerator-freezers—automatic defrost with top-mounted freezer .....	11.80AV + 339.2 .....	0.417av + 339.2.
13I. Compact refrigerator-freezers—automatic defrost with top-mounted freezer with an automatic icemaker.	11.80AV + 423.2 .....	0.417av + 423.2.
13A. Compact all-refrigerator—automatic defrost .....	9.17AV + 259.3 .....	0.324av + 259.3.
14. Compact refrigerator-freezers—automatic defrost with side-mounted freezer .....	6.82AV + 456.9 .....	0.241av + 456.9.
14I. Compact refrigerator-freezers—automatic defrost with side-mounted freezer with an automatic icemaker.	6.82AV + 540.9 .....	0.241av + 540.9.
15. Compact refrigerator-freezers—automatic defrost with bottom-mounted freezer .....	11.80AV + 339.2 .....	0.417av + 339.2.
15I. Compact refrigerator-freezers—automatic defrost with bottom-mounted freezer with an automatic icemaker.	11.80AV + 423.2 .....	0.417av + 423.2.
16. Compact upright freezers with manual defrost .....	8.65AV + 225.7 .....	0.306av + 225.7.
17. Compact upright freezers with automatic defrost .....	10.17AV + 351.9 .....	0.359av + 351.9.
18. Compact chest freezers .....	9.25AV + 136.8 .....	0.327av + 136.8.

AV = Total adjusted volume, expressed in ft<sup>3</sup>, as determined in appendices A and B to subpart B of this part.  
 av = Total adjusted volume, expressed in Liters.

(2) The following standards apply to products manufactured on or after January 31, 2029.

TABLE 2 TO PARAGRAPH (a)(2)

Product class	Equations for maximum energy use (kWh/yr)	
	Based on AV (ft <sup>3</sup> )	Based on av (L)
3-BI. Built-in refrigerator-freezer—automatic defrost with top-mounted freezer	8.24AV + 238.4 + 28I .....	0.291av + 238.4 + 28I.
3A-BI. Built-in All-refrigerators—automatic defrost .....	(7.22AV + 205.7) * K3ABI .....	(0.255av + 205.7) * K3ABI.
4-BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer.	(8.79AV + 307.4) * K4BI + 28I .....	(0.310av + 307.4) * K4BI + 28I.
5-BI. Built-In Refrigerator-freezers—automatic defrost with bottom-mounted freezer.	(8.65AV + 309.9) * K5BI + 28I .....	(0.305av + 309.9) * K5BI + 28I.
5A. Refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service.	(7.76AV + 351.9) * K5A .....	(0.274av + 351.9) * K5A.
5A-BI. Built-in refrigerator-freezer—automatic defrost with bottom-mounted freezer with through-the-door ice service.	(8.21AV + 370.7) * K5ABI .....	(0.290av + 370.7) * K5ABI.
7-BI. Built-In Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service.	(8.82AV + 384.1) * K7BI .....	(0.311av + 384.1) * K7BI.
8. Upright freezers with manual defrost .....	5.57AV + 193.7 .....	0.197av + 193.7.
9-BI. Built-In Upright freezers with automatic defrost .....	(9.37AV + 247.9) * K9BI + 28I .....	(0.331av + 247.9) * K9BI + 28I.
9A-BI. Built-In Upright freezers with automatic defrost with through-the-door ice service.	9.86AV + 288.9 .....	0.348av + 288.9.
10. Chest freezers and all other freezers except compact freezers .....	7.29AV + 107.8 .....	0.257av + 107.8.
10A. Chest freezers with automatic defrost .....	10.24AV + 148.1 .....	0.362av + 148.1.
11. Compact refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost.	7.68AV + 214.5 .....	0.271av + 214.5.
11A. Compact all-refrigerators—manual defrost .....	6.66AV + 186.2 .....	0.235av + 186.2.
12. Compact refrigerator-freezers—partial automatic defrost .....	(5.32AV + 302.2) * K12 .....	(0.188av + 302.2) * K12.
13. Compact refrigerator-freezers—automatic defrost with top-mounted freezer	10.62AV + 305.3 + 28I .....	0.375av + 305.3 + 28I.
13A. Compact all-refrigerators—automatic defrost .....	(8.25AV + 233.4) * K13A .....	(0.291av + 233.4) * K13A.
14. Compact refrigerator-freezers—automatic defrost with side-mounted freezer.	6.14AV + 411.2 + 28I .....	0.217av + 411.2 + 28I.
15. Compact refrigerator-freezers—automatic defrost with bottom-mounted freezer.	10.62AV + 305.3 + 28I .....	0.375av + 305.3 + 28I.
16. Compact upright freezers with manual defrost .....	7.35AV + 191.8 .....	0.260av + 191.8.
17. Compact upright freezers with automatic defrost .....	9.15AV + 316.7 .....	0.323av + 316.7.
18. Compact chest freezers .....	7.86AV + 107.8 .....	0.278av + 107.8.

AV = Total adjusted volume, expressed in ft<sup>3</sup>, as determined in appendices A and B to subpart B of this part.

av = Total adjusted volume, expressed in Liters.

I = 1 for a product with an automatic icemaker and = 0 for a product without an automatic icemaker. Door Coefficients (e.g., K3ABI) are as defined in the following table.

TABLE 3 TO PARAGRAPH (a)(2)

Door coefficient	Products with a transparent door	Products without a transparent door with a door-in-door	Products without a transparent door or door-in-door with added external doors
K3ABI .....	1.10	1.0	1.0.
K4BI .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K5BI .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K5A .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 3).
K5ABI .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 3).
K7BI .....	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K9BI .....	1.0	1.0	1 + 0.02 * (N <sub>d</sub> - 1).
K12 .....	1.0	1.0	1 + 0.02 * (N <sub>d</sub> - 1).
K13A .....	1.10	1.0	1.0.

**Notes:**

<sup>1</sup> N<sub>d</sub> is the number of external doors.

<sup>2</sup> The maximum N<sub>d</sub> values are 2 for K12, 3 for K9BI, and 5 for all other K values.

(3) The following standards apply to products manufactured on or after January 31, 2030.

TABLE 4 TO PARAGRAPH (a)(3)

Product class	Equations for maximum energy use (kWh/yr)	
	Based on AV (ft <sup>3</sup> )	Based on av (L)
1. Refrigerator-freezers and refrigerators other than all-refrigerators with manual defrost.	6.79AV + 191.3	0.240av + 191.3.
1A. All-refrigerators—manual defrost	5.77AV + 164.6	0.204av + 164.6.
2. Refrigerator-freezers—partial automatic defrost	(6.79AV + 191.3) * K2	(0.240av + 191.3) * K2.
3. Refrigerator-freezers—automatic defrost with top-mounted freezer	6.86AV + 198.6 + 28I	0.242av + 198.6 + 28I.
3A. All-refrigerators—automatic defrost	(6.01AV + 171.4) * K3A	(0.212av + 171.4) * K3A.
4. Refrigerator-freezers—automatic defrost with side-mounted freezer	(7.28AV + 254.9) * K4 + 28I	(0.257av + 254.9) * K4 + 28I.
5. Refrigerator-freezers—automatic defrost with bottom-mounted freezer	(7.61AV + 272.6) * K5 + 28I	(0.269av + 272.6) * K5 + 28I.
6. Refrigerator-freezers—automatic defrost with top-mounted freezer with through-the-door ice service.	7.14AV + 280.0	0.252av + 280.0.
7. Refrigerator-freezers—automatic defrost with side-mounted freezer with through-the-door ice service.	(7.31AV + 322.5) * K7	(0.258av + 322.5) * K7.
9. Upright freezers with automatic defrost	(7.33AV + 194.1) * K9 + 28I	(0.259av + 194.1) * K9 + 28I.

AV = Total adjusted volume, expressed in ft<sup>3</sup>, as determined in appendices A and B to subpart B of this part.

av = Total adjusted volume, expressed in Liters.

I = 1 for a product with an automatic icemaker and = 0 for a product without an automatic icemaker. Door Coefficients (e.g., K3A) are as defined in the following table.

TABLE 5 TO PARAGRAPH (a)(3)

Door coefficient	Products with a transparent door	Products without a transparent door with a door-in-door	Products without a transparent door or door-in-door with added external doors
K2	1.0	1.0	1 + 0.02 * (N <sub>d</sub> - 1).
K3A	1.10	1.0	1.0.
K4	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K5	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K7	1.10	1.06	1 + 0.02 * (N <sub>d</sub> - 2).
K9	1.0	1.0	1 + 0.02 * (N <sub>d</sub> - 1).

**Notes:**

<sup>1</sup> N<sub>d</sub> is the number of external doors.

<sup>2</sup> The maximum N<sub>d</sub> values are 2 for K2, and 5 for all other K values.

\* \* \* \* \*

**Note:** The following appendix will not appear in the Code of Federal Regulations.

**Appendix A**

March 18, 2024

Ami Grace-Tardy  
 Assistant General Counsel for  
 Legislation, Regulation and Energy Efficiency  
 U.S. Department of Energy  
 Washington, DC 20585  
 Ami.Grace-Tardy@hq.doe.gov

Re: Energy Conservation Standards for  
 Consumer Refrigerators, Refrigerator-  
 Freezers, and Freezers, DOE Docket No.  
 EERE-2017-BT-STD-0003

Dear Assistant General Counsel Grace-Tardy:

I am responding to your January 18, 2024 letter seeking the views of the Attorney General about the potential impact on competition of proposed energy conservation standards for refrigerators, refrigerator-freezers, and freezers.

Your request was submitted under Section 325(o)(2)(B)(i)(V) of the Energy Policy and Conservation Act, as amended (EPCA), 42 U.S.C. 6295(o)(2)(B)(i)(V), which requires the Attorney General to make a determination of the impact of any lessening of competition

likely to result from the imposition of proposed energy conservation standards. The Attorney General's responsibility for responding to requests from other departments about the effect of a program on competition has been delegated to the Assistant Attorney General for the Antitrust Division in 28 CFR 0.40(g). The Assistant Attorney General for the Antitrust Division has authorized me, as the Policy Director for the Antitrust Division, to provide the Antitrust Division's views regarding the potential impact on competition of proposed energy conservation standards on his behalf.

In conducting its analysis, the Antitrust Division examines whether a proposed standard may lessen competition, for example, by substantially limiting consumer choice, by placing certain manufacturers at an unjustified competitive disadvantage, or by inducing avoidable inefficiencies in production or distribution of particular products. A lessening of competition could result in higher prices to manufacturers and consumers.

We have reviewed the proposed standard contained in the Notice of proposed rulemaking and the related Technical Support Document. We have also reviewed public comments and information provided by industry participants.

Based on this review, our conclusion is that the proposed energy conservation standards for refrigerators, refrigerator-freezers, and freezers are unlikely to have a significant adverse impact on competition.

Sincerely,  
 /s/  
 David G.B. Lawrence,  
 Policy Director.

[FR Doc. 2024-12893 Filed 6-12-24; 8:45 am]

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