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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



OFFICE OF AIR AND  
RADIATION

December 27, 2018

Dear ENERGY STAR® Vending Machine Partner or Other Interested Party:

With this letter, the U.S. Environmental Protection Agency (EPA) is releasing the Draft 2, Version 4.0 ENERGY STAR Refrigerated Beverage Vending Machine [Product Specification](#). Stakeholders are encouraged to submit comments on this draft to EPA no later than January 24, 2019.

**Comments Received on the Draft 1 Proposal**

EPA received extensive feedback on the Draft 1 Version 4.0 Refrigerated Beverage Vending Machine Product Specification. The Agency hosted a webinar to discuss this feedback as well as numerous follow-up discussions with stakeholders to fully understand the current state of the market. Commenters focused most significantly on the efficiency criteria proposed in Draft 1, which EPA has revised in Draft 2. Stakeholders also provided feedback on a range of other topics in response to the Draft 1 specification including: definitions; scope expansion to Combination A and Combination B machines; proposed energy use criteria; market characteristics; placement limitations for machines operating on R-290; and the proposed effective date. Noteboxes throughout the Draft 2 specification as well as the comment response document that accompanies this letter respond to the full range of comments.

Key elements of the Draft 2 Version 4.0 specification include:

**Definitions:** The Draft 1 introduced a number of term and definition changes primarily to align with the U.S. Department of Energy's (DOE) final rule 10 CFR §431. All of the proposed Draft 1 term and definition changes remain in the Draft 2 with the exception of 'Food Vending Machines' which, per stakeholder feedback, has been amended to 'Refrigerated Food Vending Machines.'

**Scope:** EPA proposed expanding scope in Draft 1 to include food vending machines (Refrigerated Food Vending Machines); however, due to the absence of a test method and the low market share of these products, EPA is not considering expansion at this time for perishable food product vending machines. However, the Agency is maintaining expansion to include Combination A and Combination B refrigerated beverage vending machines.

**MDEC Requirements:** EPA received stakeholder comments suggesting that the proposed Draft 1 levels were too aggressive. The Agency re-evaluated the performance data and is proposing amended levels in this Draft 2 specification. As EPA noted in Draft 1, the Agency anticipates that as manufacturers reconfigure their vending machine products to meet the new federal minimum standard, there will be opportunities to reduce the incremental cost of producing more efficient products by leveraging existing technologies, design options, and components. Therefore, EPA is proposing levels in Draft 2 that reflect the efficiency

performance of the top 31% of Class A and 32% of Class B refrigerated beverage vending machines. Data plots can be found in the ENERGY STAR Version 4.0 Draft 2 Refrigerated Beverage Vending Machine [Product Development website](#).

**Refrigerants:** Through stakeholder comments and subsequent follow-up conversations, EPA has been made aware of the challenge the industry is facing with the ASHARE 15, UL 541, and CSA 128 placement limitations for refrigerated beverage vending machines operating on R-290 as a refrigerant. The Agency understands that the industry is working on solutions for leak mitigation and that those 2 solutions may include additional componentry, possibly resulting in additional energy consumption. While the industry continues to address these challenges, EPA is moving forward with the planned Version 4.0 specification, but will continue to track the progress and ongoing activities related to the development of flammable refrigerant leak mitigation solutions as they are introduced to the market, and the potential impacts on the energy efficiency of the products.

**Effective Date:** A couple stakeholders suggested postponing the Version 4.0 effective date to allow the industry additional time to re-design their products to improve energy performance and transition to lowGWP refrigerants. In response, EPA has proposed levels achievable by a broad selection of models on the market today and will work with stakeholders to develop a new specification that considers use of alternative refrigerants and other efficiency gains in the future. EPA anticipates finalizing this specification by the end of Q1 2019 with it taking effect 9 months after.

#### Stakeholder Webinar

EPA will host a webinar to answer any questions on this Draft 2, Version 4.0 ENERGY STAR Refrigerated Beverage Vending Machine Product Specification on **January 10, 2019 at 12:00 PM Eastern Time**. Please register [here](#) if you plan on attending.

#### Comment Submittal

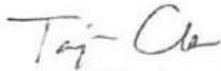
EPA welcomes stakeholder input on the attached Draft 2, Version 4.0 ENERGY STAR Refrigerated Beverage Vending Machine Product Specification. Stakeholders are encouraged to submit any comments to [vendingmachines@energystar.gov](mailto:vendingmachines@energystar.gov) by **January 24, 2019**. All comments will be posted to the [ENERGY STAR Product Development website](#) unless the submitter requests otherwise.

The exchange of ideas and information between the EPA, industry, and other interested parties is critical to the success of ENERGY STAR. Specifications and meeting materials will be distributed via email and posted on the ENERGY STAR Product Development website. Please contact me at [Crk.Tanja@epa.gov](mailto:Crk.Tanja@epa.gov) or 202-566-1037 and Adam Spitz at [Adam.Spitz@icf.com](mailto:Adam.Spitz@icf.com) or 916-231-7685 with questions or concerns. For questions on the test method, please contact Stephanie Johnson at [Stephanie.Johnson@ee.doe.gov](mailto:Stephanie.Johnson@ee.doe.gov) or (202) 287-1943. For any other vending machine related questions, please contact [vendingmachines@energystar.gov](mailto:vendingmachines@energystar.gov).

Please contact me at [Crk.Tanja@epa.gov](mailto:Crk.Tanja@epa.gov) or 202-566-1037 and Adam Spitz at [Adam.Spitz@icf.com](mailto:Adam.Spitz@icf.com) or 916-231-7685 with questions or concerns regarding this draft specification. For questions on the test method, please contact Stephanie Johnson at [Stephanie.Johnson@ee.doe.gov](mailto:Stephanie.Johnson@ee.doe.gov) or (202) 287-1943. For any other vending machine related questions, please contact [vendingmachines@energystar.gov](mailto:vendingmachines@energystar.gov).

Thank you for your continued support of the ENERGY STAR program.

Sincerely,



Tanja Crk, Product Manager  
ENERGY STAR Commercial Food Service  
U.S. Environmental Protection Agency

Enclosures:

[Draft 2 Version 4.0 ENERGY STAR Vending Machines Specification](#)  
[Vending Machine Comment Response Document for Draft 1 version 4.0](#)

For more information, visit: [www.energystar.gov](http://www.energystar.gov)

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