

Appliance Standards Awareness Project
American Council for an Energy-Efficient Economy
Northwest Energy Efficiency Alliance

May 31, 2022

Dr. Stephanie Johnson
U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
Building Technologies, EE-2J
1000 Independence Avenue SW, Washington, DC 20585

RE: Docket Number EERE-2021-BT-TP-0007: Proposed Rule for Test Procedures for Refrigerated Bottled or Canned Beverage Vending Machines

Dear Dr. Johnson:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), the American Council for an Energy-Efficient Economy (ACEEE) and the Northwest Energy Efficiency Alliance (NEEA) on the notice of proposed rulemaking for test procedures for refrigerated bottled or canned beverage vending machines (BVMs). 87 FR 18936 (March, 31 2022). We appreciate the opportunity to provide input to the Department.

We encourage DOE to consider defining a category and establishing a separate test temperature for BVMs only capable of operating at temperatures above $36^{\circ}\text{F} \pm 1^{\circ}\text{F}$. We support DOE's proposed provisions for testing units only capable of operating below $36^{\circ}\text{F} \pm 1^{\circ}\text{F}$ at their highest thermostat setting as well as the proposal to update the definition of lowest application product temperature (LAPT) to include this situation.

However, for units only capable of operating at temperatures above $36^{\circ}\text{F} \pm 1^{\circ}\text{F}$, DOE proposes to maintain the current provisions that require testing at the LAPT of a BVM. We are concerned that units that are tested at operating temperatures above the specified test temperature, and thus consume less energy (by cooling to a higher temperature), can more easily comply with the energy conservation standards. While the majority of BVMs are able to achieve the required integrated average temperature (IAT) of $36^{\circ}\text{F} \pm 1^{\circ}\text{F}$, there are currently six Class A models that are rated at their LAPT, and DOE notes in the NOPR that at the time of their analysis, nine models were rated at LAPTs (as high as 41.3°F). Therefore, we encourage DOE to consider defining a category and establishing a separate test temperature for BVMs only capable of operating at temperatures above $36^{\circ}\text{F} \pm 1^{\circ}\text{F}$.

We support DOE's proposed provisions relating to bill and coin payment mechanisms, but are concerned that the energy consumed by credit card readers would not be captured. DOE has proposed that if bill and coin payment mechanisms are shipped with a BVM, they must be energized for testing. In the NOPR, DOE states that bill and coin payment mechanisms are typically shipped with the BVM, while credit card readers are typically offered as an optional feature available for shipping with the BVM.

DOE explains that the 0.2 kWh default power adder (that is to be applied if a BVM is not shipped with bill and coin payment mechanisms) represents one bill and one coin payment mechanism.¹ Thus, the energy consumed by a credit card reader would not be captured through direct testing nor through the application of this power adder. We therefore encourage DOE to extend its proposal to all types of payment mechanisms shipped with a BVM, and require credit card readers to be energized during testing if they are sold with the model.

We support DOE's proposed specification for testing units with refrigerant leak mitigation controls.

DOE has proposed to test BVMs that are installed with refrigerant leak mitigation controls consistent with provisions for other accessories. Specifically, we think that it is appropriate that if the refrigerant leak mitigation controls are always on, they shall be energized and operational for testing.

We encourage DOE to investigate units that may have frequent door openings and consider test procedure amendments for testing these types of units.

DOE determined that BVM restocking events are infrequent and that most of a unit's operation is stable, and therefore concluded that the current test procedures represent an average use cycle.² However, there appears to be a model on the market that is designed so that the user opens the door to reach in and obtain the beverage product, instead of the product being vended from a chute.³ We are concerned that with such a design, the current and proposed test procedures would not capture any door openings, which would likely result in underestimating energy consumption. We therefore encourage DOE to investigate potential test procedure amendments to more accurately capture an average use cycle for units with such a design.

Thank you for considering these comments.

Sincerely,



Rachel Margolis
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Appliance Standards Awareness Project



Amber Wood
Director, Buildings Program
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¹We understand that in the 2015 rulemaking, the power adder value was determined from considering all three payment mechanisms. However, DOE asserts in this rulemaking, the power adder represents just the bill and coin payment mechanisms. <https://www.regulations.gov/document/EERE-2021-BT-TP-0007-0008>. P. 18945.

² <https://www.regulations.gov/document/EERE-2021-BT-TP-0007-0008>. p. 18947.

³

<https://buyvending.com/shop/new-vending-machines/drink-vending-machines/piranha-g525-drink-vending-machine-cashless/>