

March 24, 2022

Ms. Ga-Young Park
US Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20004

Dear Ms. Park:

The Consortium for Energy Efficiency (CEE) respectfully submits the following comments in response to ENERGY STAR® Version 7.0 Residential Dishwasher Draft 2 Specification, released by the Environmental Protection Agency (EPA) on January 6, 2022.

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

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

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

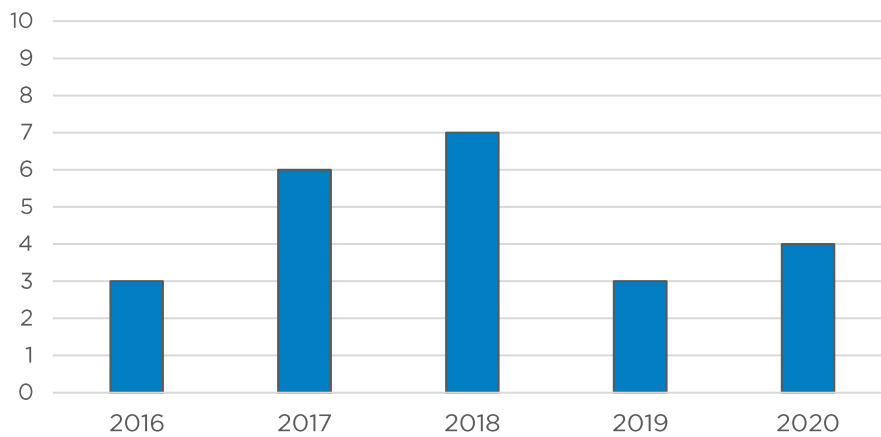
Proposed Methodology for Specification Revision In Line with ENERGY STAR Guiding Principles

CEE appreciates EPA's efforts to continue distinguishing the highest performing dishwashers in the Version 7.0 Draft 2 Specification. With ENERGY STAR dishwashers nearing 100% market saturation, CEE understands and respects EPA's decision to institute more stringent energy and water criteria that recognize the most efficient products and reward market leaders. Based on ENERGY STAR Product Finder data as of February 1, 2022, 137 standard dishwasher models from 26 manufacturer brands and nine compact models from two manufacturer brands would qualify for the proposed energy and water performance criteria. After reviewing this data as well as the analysis shared by EPA, CEE agrees that a sufficient number of dishwashers are able to qualify, and notes that a variety of brands are represented among the qualifying models at the specified energy and water performance levels.

Per Unit Savings Are Unlikely to Justify Financial Incentives by Utility Programs

While there remains opportunity to differentiate models, the incremental savings potential associated with dishwashers as a product category is relatively small over a baseline of the US Department of Energy (DOE) federal minimum standards, at 67kWh/yr for both standard and compact models. Given the limited incremental savings, many CEE members do not find dishwashers a viable measure to promote through traditional financial incentives. As of 2020 there were only four CEE members with active dishwasher program offerings, with rebate amounts ranging from \$10 to \$50. The number of CEE members running residential dishwasher programs has remained between three and eight since 2016, as indicated by Figure 1.

Figure 1. Number of CEE Members Running Dishwasher Programs (2016-2020)



Some program administrators have indicated that they are more likely to pursue continued messaging and consumer education efforts regarding proper dishwasher use than providing customer incentives associated with specified performance levels. To ensure that the ENERGY STAR program provides value to both manufacturers and consumers, CEE encourages EPA to consult further with the dishwasher industry to better assess the technical limitations that the proposed energy and water criteria present and share this analysis with stakeholders.

Minimum Cleaning Performance Threshold Serves as an Effective Concept to Distinguish Dishwashers

Given the importance of ensuring that dishwasher cleaning performance and overall customer satisfaction is not sacrificed as energy and water use decreases, CEE is supportive of EPA's decision to establish minimum cleaning performance requirements in the Version 7.0 Residential Dishwasher Draft 2 Specification. Concern around cleaning performance was a central consideration for the CEE Residential Appliances Committee when revising our Dishwasher Specification in 2016. While CEE is not in a position to assert the technical viability or credibility of the ENERGY STAR Test Method for Determining Residential Dishwasher Cleaning Performance, we note that various manufacturers raise concern regarding the repeatability and reproducibility, citing significant variation in performance from lab to lab, as determined by the Association of Home Appliance Manufacturers (AHAM) round robin testing. Consistency and duplicability are critical attributes for any test method that serves as the basis for a mandatory requirement. Manufacturers' responses to the ENERGY STAR Version 7.0 Residential Dishwasher Draft 1 Specification reflect that industry has not accepted the cleaning performance test method, and CEE encourages EPA to work with manufacturers to ensure

that their concerns are addressed, and appropriate revisions are made to the test procedure.

CEE Supports EPA's Removal of 5% Connected Allowance for Demand Response Capable Dishwashers

Since 2011, CEE has been actively engaged with EPA and manufacturers to assess the conditions and specification requirements necessary for ENERGY STAR to successfully address connected capabilities of consumer products. CEE has previously requested a basis to justify the 5% credit for connected appliances and expressed concern about compromising measurable energy benefits. Due to these concerns, CEE has never instituted a 5% allowance for connected dishwashers, or any other connected residential appliances, instead recognizing efficient products that offer automated demand response coupled with open standards communication. With insufficient information presented to justify its inclusion, CEE continues to have concerns that a 5% connected allowance for ENERGY STAR products will necessarily provide meaningful energy savings given efficiency tradeoffs. CEE supports EPA's decision to remove the 5% collected allowance for demand response capable dishwashers as currently specified.

CEE Continues to Advocate for Multiple Pathways to Connect and Requirement of Standardized Modular Port

CEE applauds EPA's commitment to recognizing dishwashers that utilize open, non-proprietary communications to achieve two-way connectedness within the bounds of the customer's premises. CEE members assert that enabling interoperability with multiple products and manufacturers is desirable so that customers continue to retain the flexibility necessary for future product choice across manufacturers and service providers, while reducing the risk of these demand flexible loads proving to be stranded assets. Open, nonproprietary communication standards constitute a critical pillar of the *CEESM Integrated Home Initiative*, which specifies the US and Canadian framework for a grid-interactive, fuel neutral, efficient home where products and systems seamlessly communication to optimize value for consumers, as well as the utility grid and distribution systems. Consistent with past comments, CEE encourages EPA to require connection within the physical premises of the home for product certification. While customer-supplied broadband may be a viable way to achieve connectedness within a customer's home,

there remains a significant number of customers across the country who do not have broadband or wireless access. Furthermore, there are customers who may not be willing to support the use of their broadband or wireless connection by their utility for demand response program purposes. CEE recommends EPA specify that a connected dishwasher be equipped to communicate via all major communication pathways to ensure that all customers are able to operationalize connected product capabilities. Given the diverse set of conditions encountered by CEE members (e.g., regulatory, terrain, customer density, metering infrastructure), program administrators are likely to use of variety of communications pathways to reach devices for demand response program participation. As with past CEE comments, we support connectivity requirements that enable direct, on-premise, open-standards-based connectivity using the physical and data-link layers of an industry-accepted, modular communication interface such as ANSI/CTA-2045. CEE encourages EPA to consider requiring a standardized modular port in conjunction with open standards as one option to address this diversity and enable customers to realize the potential benefits associated with connected product functionality.

CEE would once again like to thank EPA for the opportunity to comment on the ENERGY STAR Dishwasher Draft 2 Version 7.0 Specification. Please contact Chloe Mayhew at cmayhew@cee1.org or 978-972-5511 with any questions about these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "John Taylor". The signature is fluid and cursive, with the first name "John" and last name "Taylor" clearly distinguishable.

John Taylor
Deputy Director