

Appliance Standards Awareness Project  
Alliance to Save Energy  
American Council for an Energy-Efficient Economy  
Consumer Federation of America  
National Consumer Law Center, on behalf of its low-income clients  
Natural Resources Defense Council

September 19, 2019

Mr. Bryan Berringer  
U.S. Department of Energy  
Office of Energy Efficiency and Renewable Energy  
Building Technologies Program, EE-5B  
1000 Independence Avenue SW  
Washington, DC 20585

**RE: Docket Number EERE-2016-BT-TP-0012: Request for Information for Test Procedure for Dishwashers**

Dear Mr. Berringer:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), Alliance to Save Energy, American Council for an Energy-Efficient Economy (ACEEE), Consumer Federation of America (CFA), National Consumer Law Center, on behalf of its low-income clients (NCLC), and Natural Resources Defense Council (NRDC) on the request for information (RFI) for the test procedure for dishwashers. 84 Fed. Reg. 43071 (August 20, 2019). We appreciate the opportunity to provide input to the Department.

**We support additional specificity to the test procedure regarding the loading pattern.** The RFI notes that while the current DOE test procedure requires loading in accordance with the manufacturer's recommendation, manufacturers do not provide instructions for loading a mix of soiled and clean items.<sup>1</sup> The RFI further notes that the positioning of soiled items relative to unsoiled items may impact soil sensor responses. We support adding additional specificity to the test procedure regarding the loading pattern to ensure that all manufacturers are testing in a consistent manner and to improve the reproducibility of test results among test laboratories.

**We support the incorporation of a water hardness requirement.** The RFI notes that while the ENERGY STAR cleaning performance test includes a water hardness requirement that is consistent with ANSI/AHAM DW-1-2010, the current DOE test procedure does not specify any water hardness requirement.<sup>2</sup> The RFI also notes that AHAM commented that the lack of a water hardness requirement may contribute to variability in test results. We support the incorporation of a water hardness requirement consistent with the specification in ANSI/AHAM DW-1-2010 to improve the reproducibility of test results among test laboratories.

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<sup>1</sup> 84 Fed. Reg. 43076.

<sup>2</sup> 84 Fed. Reg. 43077.

**We support a clarification to the measurement of standby and off mode power to specify that the test be conducted with the door closed.** The RFI notes that the current DOE test procedure does not specify whether standby and off mode testing should be conducted with the door open or closed.<sup>3</sup> We support a clarification to the test method to ensure that all manufacturers are measuring standby and off mode power consistently and to improve reproducibility among test laboratories. It seems appropriate for the test procedure to specify that testing of standby and off mode power consumption for dishwashers be conducted with the door closed.

**We encourage DOE to incorporate a measurement of network mode power consumption in the test procedure.** As of September 2019, there were 11 dishwasher models certified to ENERGY STAR as meeting the ENERGY STAR definition for “connected.”<sup>4</sup> Products with such connected functionality consume energy in “network mode,” which is not currently captured in the DOE test procedure. We understand that the IEC 62301 test procedure defines “network mode” and provides a method for measuring network mode power consumption. We encourage DOE to incorporate a measurement of network mode power consumption in the test procedure to better represent the energy consumption of “connected” dishwashers. Without a measurement of network mode power consumption, consumers will have no information about the additional energy use associated with the connected functionality.

**It does not appear that data on current dishwasher models support an approach of establishing energy and water use metrics on a per-place setting basis.** The RFI requests comment on a potential approach of establishing energy and water use metrics on a per-place setting basis.<sup>5</sup> DOE notes that China had commented in response to the December 2014 NOPR suggesting a less stringent standard for larger capacity dishwashers. We would not object to an approach of establishing energy and water use metrics on a per-place setting basis provided there was a sound technical reason to do so. However, data on current dishwasher models do not appear to support the need for such an approach. As shown in the graphs below, based on the energy and water use ratings of current dishwasher models certified to DOE,<sup>6</sup> there does not appear to be a relationship between dishwasher capacity (number of place settings) and energy or water use. Furthermore, the dishwasher models with the lowest rated energy consumption (199 kWh/year) have the highest capacity of models certified to DOE (16 place settings), and there are dishwashers across the range of capacities that consume significantly less energy and water than what the standards allow.

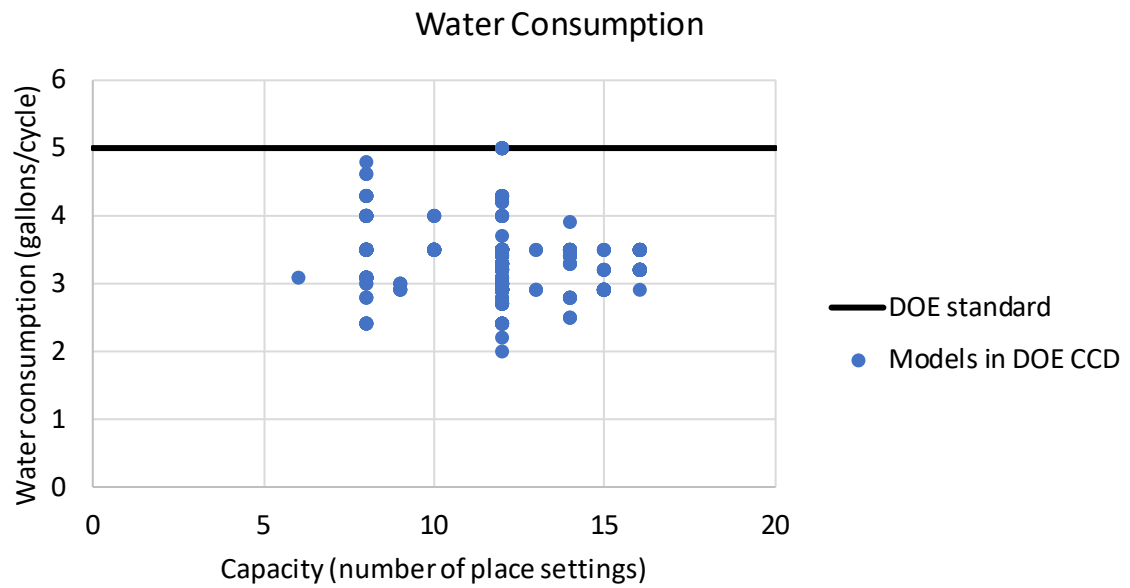
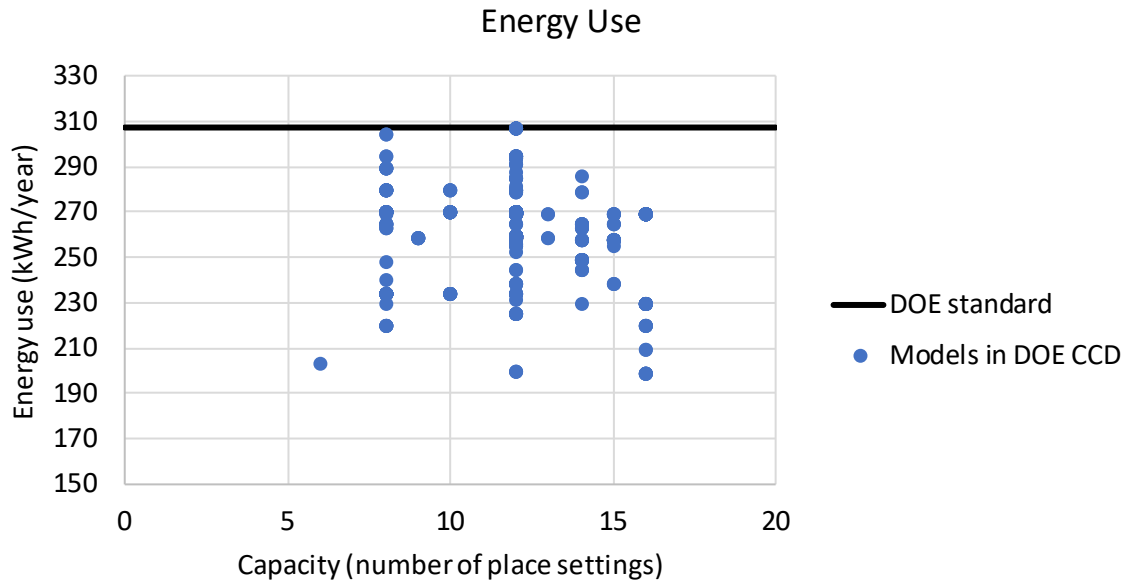
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<sup>3</sup> Ibid.

<sup>4</sup> <https://www.energystar.gov/productfinder/product/certified-residential-dishwashers/results>. Accessed September 16, 2019.

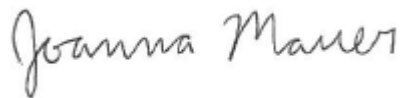
<sup>5</sup> 84 Fed. Reg. 43078.

<sup>6</sup> [https://www.regulations.doe.gov/certification-data/#q=Product\\_Group\\_s%3A\\*](https://www.regulations.doe.gov/certification-data/#q=Product_Group_s%3A*). Accessed September 12, 2019.



Thank you for considering these comments.

Sincerely,



Joanna Mauer  
Technical Advocacy Manager  
Appliance Standards Awareness Project



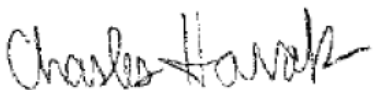
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