

Appliance Standards Awareness Project
American Council for an Energy-Efficient Economy
National Consumer Law Center
Natural Resources Defense Council
New York State Energy Research and Development Authority

January 31, 2023

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

RE: Docket Number EERE-2022-BT-TP-0003: Test Procedures for Dedicated-Purpose Pool Pumps

Dear Mr. Domm:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), American Council for an Energy-Efficient Economy (ACEEE), National Consumer Law Center (NCLC) on behalf of its low-income clients, Natural Resources Defense Council (NRDC), and the New York State Energy Research and Development Authority (NYSERDA) on the notice of proposed rulemaking (NOPR) for test procedures for dedicated-purpose pool pumps (DPPPs). 87 Fed. Reg. 74023 (December 2, 2022). We appreciate the opportunity to provide input to the Department.

We support DOE's proposed changes to align DPPP definitions with the definitions for pool pump motors. Since the DPPP test procedure was established, DOE published a test procedure final rule for DPPP motors based on a joint stakeholder petition.¹ Some definitions for the DPPP motor test procedure, based on UL 1004—10:2020, do not align with current definitions for DPPPs. Thus, DOE has proposed to amend certain DPPP definitions to align with the equivalent DPPP motor definitions.² We support aligning the DPPP and DPPP motor definitions, which should reduce confusion or conflict between the DPPP and DPPP motor test procedures.

We encourage DOE to develop a test method for pool pumps subject to the DPPP Enforcement Policy rather than excluding them. As discussed in the NOPR, there are several models of pool filter pumps that are designed and marketed for commercial applications that have hydraulic output power less than 2.5 hp.³ To address these pumps, which were not considered in the prior DPPP test procedure rulemaking, DOE issued an Enforcement Policy stating that these DPPPs were distinct from those considered by the original DPPP Working Group and that the Department would not enforce testing, labeling, certification, or standards for these pool pumps. While we understand that the DPPPs subject to the Enforcement Policy cannot be tested using the system curve C, another system curve to test

¹86 Fed. Reg. 40765 (July 29, 2021).

²The NOPR proposes to amend the definitions for multi-speed DPPP, variable-speed DPPP, DPPP motor total horsepower, and rigid-electric spa pump while adding definitions for drive and maximum operating speed.

³87 Fed. Reg. 74028, 74029.

these systems was discussed in prior comments by the California Investor-Owned Utilities.⁴ Thus, rather than excluding them from the scope of the test procedure, we encourage DOE to explore different system curves that could be used to test these pool filter pumps as part of the DPPP test procedure.

We encourage DOE to expand the scope of the test procedure to cover larger DPPPs used in commercial applications. As DOE describes in the NOPR, the current test procedure applies only to pumps with hydraulic output power less than 2.5 hp. Output powers of less than 2.5 hp generally correspond to pumps used in residential applications, while larger hp DPPPs are commonly installed in commercial applications. Although large public pools make up a small portion of all pool installations, it is estimated that these commercial pools account for almost half of total pool filter pump energy use.⁵ This suggests the potential for significant energy savings, particularly from use of variable-speed technologies, for commercial pool pump installations. Including these larger commercial pumps in the DPPP test procedure will help ensure that purchasers have access to efficiency information (e.g., energy savings from a variable-speed pump) based on a standardized test method.

In the NOPR, DOE discusses how commercial and public pools are subject to specific water quality requirements to ensure the health and safety of swimmers, which may represent a barrier to using variable-speed DPPPs in commercial applications.⁶ For example, pumps used in public pools are typically required to operate continuously while the pool is in use. However, we understand that many commercial pools have single-speed pumps that provide flow/turnover rates exceeding health requirements. A 2012 study conducted a variable speed pool filter pump retrofit at a swimming center and demonstrated energy savings of 34% without negatively affecting water quality.⁷ VSD pool pumps can save significant energy even during constant use by “right-sizing” oversized pool pumps to meet filtration requirements.⁸

DOE also states in the NOPR that the head and flow characteristics of commercial pool applications are significantly different from residential installations. However, given the potential energy savings for larger DPPPs used in commercial applications, we encourage DOE to include them within the test procedure scope and to develop representative test points and system curves for testing.

Thank you for considering these comments.

Sincerely,

⁴EERE-2022-BT-TP-0003-0010, pp. 2-4. www.regulations.gov/comment/EERE-2022-BT-TP-0003-0010

⁵C. Worth et al. “A Cannonball of Opportunity: The Hidden Savings Potential from Large Public Swimming Pools.” Proceedings from the 2018 ACEEE Summer Study on Energy Efficiency in Buildings.

⁶87 Fed. Reg. 74028.

⁷M. Orr et al. “Technical Analysis Debbie Meyer Swim Center Pool Pump Replacement.” October 2012. www.smud.org/-/media/Documents/Corporate/About-Us/Energy-Research-and-Development/Debbie-Meyer-Swim-Center-Report.ashx

⁸A. Hunt and S. Easley. “Measure Guideline: Replacing Single-Speed Pool Pumps with Variable Speed Pumps for Energy Savings.” May 2012. www.nrel.gov/docs/fy12osti/54242.pdf



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