

Appliance Standards Awareness Project
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
New Buildings Institute
Northwest Energy Efficiency Alliance

August 22, 2024

Ms. Julia Hegarty
U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
Building Technologies Office, EE-5B
1000 Independence Avenue SW
Washington, DC 20585

RE: Docket Number EERE-2017-BT-STD-0019/RIN 1904-AF65: Notice of Data Availability for Energy Conservation Standards for Consumer Water Heaters

Dear Ms. Hegarty:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), 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), Natural Resources Defense Council (NRDC), New Buildings Institute (NBI), and Northwest Energy Efficiency Alliance (NEEA) on the notice of data availability (NODA) for consumer water heaters. 89 Fed. Reg. 59692 (July 23, 2024). We appreciate the opportunity to provide input to the Department.

We continue to support the proposed standards for gas-fired instantaneous water heaters (GIWHs). In the July 2023 notice of proposed rulemaking (NOPR) for consumer water heaters, DOE proposed to adopt Efficiency Level (EL) 2 for GIWHs;¹ EL 2 represents an intermediate condensing level and reflects the Joint Stakeholder recommendations.² DOE's updated analysis for the NODA continues to show that EL 2 would provide cost-effective energy savings, with average life-cycle cost savings for consumers of \$109.³ Based on DOE's analysis for the NODA, EL 2 would provide 0.58 quads of national energy savings over 30 years of shipments and cut carbon dioxide emissions by 32 million metric tons.⁴ We therefore encourage DOE to adopt EL 2 for GIWHs in a final rule.

We support DOE's updated analysis for GIWHs presented in the NODA. In the NODA, DOE made several updates to the analysis for GIWHs including incorporating the most recent version of the

¹ 88 Fed. Reg. 49135 (July 28, 2023). Table IV. DOE proposed to adopt Trial Standard Level (TSL) 2.

² In October 2022, a group of joint stakeholders including water heater manufacturers, energy efficiency organizations, environmental groups, and consumer organizations submitted a set of recommendations on amended energy conservation standards for consumer water heaters:
<https://www.regulations.gov/comment/EERE-2017-BT-STD-0019-0049>.

³ 89 Fed. Reg. 59702. Table III.2.

⁴ 89 Fed. Reg. 59704-06. Tables III.6, III.10.

Residential Energy Consumption Survey (RECS)⁵ and refining the estimates of installation costs to better reflect the venting costs for both non-condensing and condensing GIWHs. While we note that the energy savings and economic results presented in the NODA are similar to those in the July 2023 NOPR, we believe that the updates in the NODA improve the analysis.

DOE has thoroughly analyzed impacts on manufacturers of GIWHs. In particular, as part of the analysis for the NODA, DOE revised its estimates of manufacturer conversion costs at efficiency levels reflecting condensing technology to specifically incorporate the costs that would be incurred to repurpose a domestic manufacturing facility that is currently optimized for producing non-condensing GIWHs.⁶ DOE's analysis for the NODA shows that the potential impacts on GIWH manufacturers at EL 2 (and at higher efficiency levels) would be modest; specifically, DOE estimates that the potential impact on industry net present value (INPV) at EL 2 ranges from a loss of 2.7% to a gain of 3.2%.⁷

DOE's analysis shows that the proposed standards for GIWHs could increase U.S. manufacturing jobs. DOE's engineering and teardown analysis found that the labor content required to produce a condensing GIWH is approximately 59% more than that required to produce a non-condensing GIWH.⁸ Therefore, DOE's proposed standards for GIWHs, which reflect condensing technology, could result in an increase in U.S. manufacturing jobs.

We continue to believe that it is highly unlikely that there would be any significant product switching as a result of the proposed standards for GIWHs. One manufacturer has argued that the proposed standards for GIWHs would result in many consumers choosing less-efficient gas storage water heaters.⁹ However, we find such an outcome to be highly unlikely for the following reasons:

- GIWHs are a premium product—typically installed in new construction and marketed for their ability to deliver “endless hot water” and save space—that are already significantly more expensive than gas storage water heaters; DOE estimates that the total installed cost of a GIWH that just meets the current standards is 41% higher than that of a gas storage water heater.¹⁰
- The estimated incremental cost for GIWHs at EL 2 in the NODA is similar to the incremental cost for gas storage water heaters at the standard levels adopted in the May 2024 final rule (\$207 vs. \$146);¹¹ in other words, the cost differential between gas storage and gas instantaneous water heaters would remain essentially unchanged with the proposed standards for GIWHs—at EL 2, the estimated total installed cost of GIWHs would continue to be 41% higher than that of a gas storage water heater meeting the updated standards.
- For replacement applications, we believe that a consumer with an existing GIWH would be unlikely to replace it with a gas storage water heater since the consumer would be unlikely to

⁵ In the July 2023 NOPR, DOE relied on the 2015 RECS, which was the most recent version of RECS that was fully available at that time. In the NODA, DOE's updated energy use analysis relies on the 2020 RECS.

⁶ 89 Fed. Reg. 59699.

⁷ 89 Fed. Reg. 59703. Table III.5.

⁸ 89 Fed. Reg. 59703.

⁹ <https://www.regulations.gov/comment/EERE-2017-BT-STD-0019-1186>.

¹⁰ In the NODA, DOE estimates a baseline installed cost for GIWHs of \$2,019 (89 Fed. Reg. 59701; Table III.1); in the May 2024 final rule, DOE estimated a baseline installed cost for gas storage water heaters of \$1,432 (89 Fed. Reg. 37890 [May 6, 2024]; Table V.2).

¹¹ For GIWHs: 89 Fed. Reg. 59701 (Table III.1). For gas storage water heaters: 89 Fed. Reg. 37890 (May 6, 2024); Table V.2; DOE adopted EL 2 for gas storage water heaters.

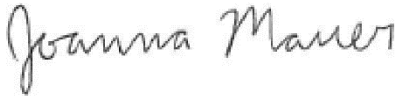
have the necessary space and appropriate venting systems, which would add significant additional cost.

- DOE estimates that 70% of current sales of GIWHs are already at condensing levels, and more than 60% of current sales meet EL 2.¹²

Therefore, we agree with DOE's determination that it is highly unlikely that consumers will switch water heating products in response to amended standards for GIWHs.

Thank you for considering these comments.

Sincerely,



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Deputy Director
Appliance Standards Awareness Project



Matt Malinowski
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¹² 89 Fed. Reg. 59698. Table II.5. ELs 1-4 reflect condensing technology.