

Appliance Standards Awareness Project  
American Council for an Energy-Efficient Economy  
Consumer Federation of America  
Consumer Reports  
Earthjustice  
National Consumer Law Center, on behalf of its low-income clients  
Natural Resources Defense Council  
Northwest Energy Efficiency Alliance  
Pacific Gas and Electric Company

July 1, 2024

Dr. Carl Shapiro  
U.S. Department of Energy  
Office of General Counsel, EE-5B  
1000 Independence Avenue SW  
Washington, DC 20585

**RE: Docket Number EERE-2014-BT-STD-0058/RIN 1904-AF59: Direct Final Rule for Energy Conservation Standards for Consumer Clothes Dryers**

Dear Dr. Shapiro:

The Appliance Standards Awareness Project (ASAP), American Council for an Energy-Efficient Economy (ACEEE), Consumer Federation of America (CFA), Consumer Reports (CR), Earthjustice, National Consumer Law Center, on behalf of its low-income clients (NCLC), Natural Resources Defense Council (NRDC), Northwest Energy Efficiency Alliance (NEEA), and Pacific Gas and Electric Company (PG&E) write to provide our strong support for the U.S. Department of Energy's (DOE's) Direct Final Rule (DFR) establishing amended energy conservation standards for consumer clothes dryers. 89 Fed. Reg. 18164 (March 12, 2024).

Our organizations include consumer advocates, efficiency and environmental advocates, and a utility; we have worked for decades advocating for efficiency standards that provide large savings for consumers and significant cuts in carbon dioxide and other air pollutant emissions. Our coalition includes organizations that are leaders in testing appliances; conducting field studies on appliance energy use; evaluating emerging technologies; developing and implementing programs to increase the market share of efficient products; analyzing the impacts of improved efficiency standards; and producing the energy powering appliances. Our coalition also includes leading environmental groups and organizations that advocate for consumers and, in particular, low-income consumers.

**We strongly support the standards in the DFR.** The standards in the DFR reflect the joint recommendation that we submitted to DOE in September 2023 with the Association of Home Appliance Manufacturers (AHAM),<sup>1</sup> which was supported by States and additional utilities.<sup>2</sup> The

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<sup>1</sup> <https://www.regulations.gov/comment/EERE-2014-BT-STD-0005-12811>.

<sup>2</sup> See Docket No. EERE-2017-BT-STD-0003-0104 (supporting statement from the New York State Energy Research and Development Authority, California Energy Commission, and Massachusetts Department of

standards for clothes dryers were part of a package of recommendations for six products (refrigerators/freezers, miscellaneous refrigeration products, residential clothes washers, clothes dryers, dishwashers, and cooking products). We appreciate that DOE has published DFRs consistent with our joint recommendation for all six products.

The new standards for standard-size electric and gas clothes dryers, which are equivalent to the current ENERGY STAR levels, will reduce energy use by about 40% relative to the least efficient products on the market today.<sup>3</sup> The standards will provide large national energy savings—2.7 quadrillion Btus over 30 years of shipments—and cut carbon dioxide emissions by 57 million metric tons.<sup>4</sup> DOE’s analysis shows that consumers purchasing an electric or gas dryer will save \$44 and \$20, respectively, on average on their annual utility bills relative to models just meeting the current standards.<sup>5</sup> Taking into account the additional upfront cost, consumers will save \$252 and \$102 on average over the life of a standard-size electric dryer and gas dryer, respectively.<sup>6</sup>

**The standards in the DFR will particularly benefit low-income consumers.** Low-income households spend three times more of their income on energy costs compared to non-low-income households;<sup>7</sup> the utility bill savings from the new standards will therefore benefit low-income households in particular. In addition, low-income households are disproportionately renters, who often are unable to choose their own clothes dryer and yet typically pay the utility bills;<sup>8</sup> the new standards will ensure that landlords purchase clothes dryers that do not unnecessarily contribute to high energy bills for their tenants. DOE found that the average payback period for all low-income households at the standard levels in the DFR is 1 year or less for each of the product categories.<sup>9</sup>

**Clothes dryers meeting the new standards provide improved drying performance relative to less efficient models.** More than 90% of ENERGY STAR electric dryers tested by *Consumer Reports* received a drying performance score of 4 or 5, while only about two-thirds of non-ENERGY STAR models achieved such ratings.<sup>10</sup> Similarly, more than 80% of ENERGY STAR gas dryers tested by *Consumer Reports* received a drying performance score of 4 or 5, while less than 60% of non-ENERGY STAR models achieved such ratings.<sup>11</sup> These data suggest that the new standards will improve drying performance.

**The new standards combined with the new test procedure will ensure that clothes dryers adequately dry clothing.** The test procedure that will be used to determine compliance with the new standards (Appendix D2) requires that models meet a threshold for “final moisture content” in

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Energy Resources, dated October 5, 2023); Docket No. EERE-2017-BT-STD-0003-0107 (supporting statement from San Diego Gas and Electric and Southern California Edison, dated October 17, 2023).

<sup>3</sup> <https://www.regulations.gov/document/EERE-2014-BT-STD-0058-0059>. pp. 7-9, 7-10. The adopted standard levels are equivalent to Efficiency Level (EL) 4 for electric standard dryers and EL 3 for vented gas dryers.

<sup>4</sup> 89 Fed. Reg. 18166-67.

<sup>5</sup> <https://www.regulations.gov/document/EERE-2014-BT-STD-0058-0059>. pp. 8-40, 8-42. Tables 8.3.1, 8.3.7.

<sup>6</sup> 89 Fed. Reg. 89 Fed. Reg. 18166. Table I.2.

<sup>7</sup> <https://www.aceee.org/sites/default/files/pdfs/u2006.pdf>.

<sup>8</sup> Nearly 90% of renters pay some or all of their energy bills:

<https://www.eia.gov/consumption/residential/data/2020/hc/pdf/HC%209.2.pdf>.

<sup>9</sup> 89 Fed. Reg. 18214-16. DOE adopted Trial Standard Level (TSL) 3.

<sup>10</sup> <https://www.consumerreports.org/appliances/clothes-dryers/electric-dryer/c30562/>. Accessed April 1, 2024.

<sup>11</sup> <https://www.consumerreports.org/appliances/clothes-dryers/gas-dryer/c30563/>. Accessed April 1, 2024.

order to be certified as compliant; this requirement ensures that compliant dryers will adequately dry clothing. There are more than 400 electric clothes dryer models and nearly 200 gas clothes dryer models that are certified to the current ENERGY STAR specification,<sup>12</sup> which is based on Appendix D2; these models all meet the final moisture content threshold.

**The standards in the DFR will not require an increase in cycle time.** DOE tested both minimally compliant clothes dryers, which are typically certified using Appendix D1, as well as clothes dryers meeting the ENERGY STAR specification, which are tested using Appendix D2. (Appendix D2 will be used to determine compliance with the standards in the DFR.) DOE found that clothes dryers certified under Appendix D1 have an average cycle time of 61 minutes when tested in accordance with Appendix D2, while there were multiple units in DOE’s test sample that are certified under Appendix D2 that have a cycle time less than 60 minutes.<sup>13</sup> These data suggest that the standards in the DFR will not necessitate any increase in cycle time.

**There is no evidence that the frequency of running multiple dryer cycles has increased over time or will increase in the future as a result of the standards in the DFR.** DOE noted in the DFR that the average number of cycles per year for electric standard clothes dryers declined from 301 in the 2005 Residential Energy Consumption Survey (RECS) to 213 in the 2020 RECS, and for vented gas standard clothes dryers from 292 in the 2005 RECS to 213 in the 2020 RECS.<sup>14</sup> During the same period, DOE noted that the average household size has remained essentially unchanged. In other words, there is no evidence that consumers are running multiple cycles in response to improved efficiency standards. In addition, as described above, the standards in the DFR will not negatively impact performance; in fact, test data on clothes dryers that already meet the new standards suggest that drying performance will improve. Furthermore, the new test procedure will ensure that all dryers meeting the new standards will adequately dry clothing. Therefore, there is no reason to believe that the frequency of running multiple cycles will increase in the future as a result of the standards in the DFR.

**The standards in the DFR will not preclude the use of electromechanical-style controls.** DOE’s analysis assumes that manufacturers will utilize electronic controls to meet the standards in the DFR. However, as DOE described in the DFR, manufacturers can implement physical dials that in turn manipulate “hidden” electronic controls.<sup>15</sup> Therefore, the standards in the DFR will not preclude manufacturers from providing the user experience associated with electromechanical controls.

**We do not expect the standards in the DFR to have any impact on product reliability.** The standards in the DFR can be met with straightforward design changes that have already been incorporated in many models on the market today. As noted above, the new standards for standard-size electric and gas dryers are equivalent to the current ENERGY STAR levels; as of 2022, 46% and 56% of sales of electric and gas dryers, respectively, were ENERGY STAR-certified.<sup>16</sup> DOE’s analysis

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<sup>12</sup> <https://www.energystar.gov/productfinder/product/certified-clothes-dryers/results>. Accessed June 17, 2024.

<sup>13</sup> 89 Fed. Reg. 18226.

<sup>14</sup> 89 Fed. Reg. 18197.

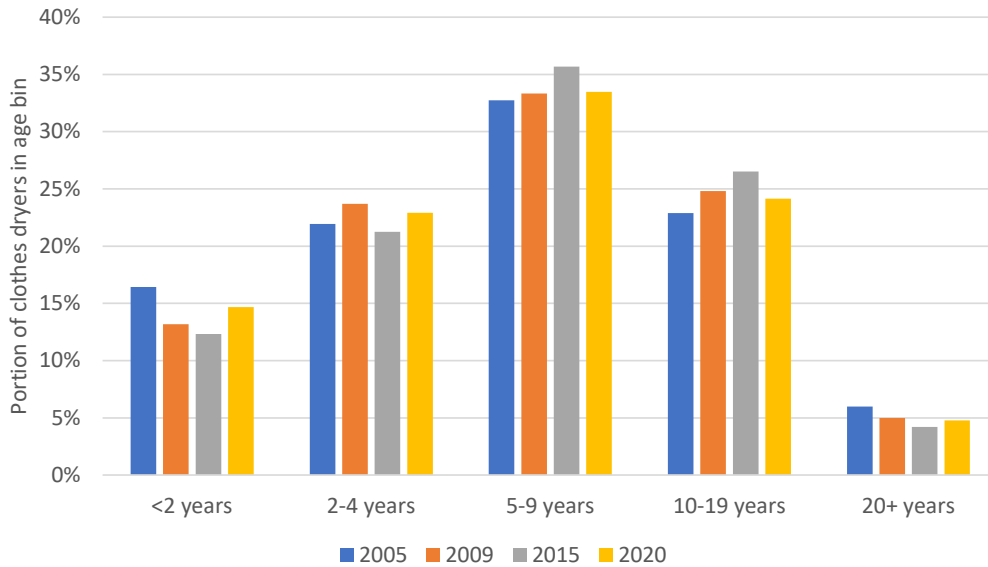
<sup>15</sup> 89 Fed. Reg. 18182.

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<https://www.energystar.gov/sites/default/files/asset/document/2022%20Unit%20Shipment%20Data%20Summary%20Report.pdf>.

for the DFR shows that the new standards can be met by improving automatic termination controls and optimizing the heating system, including using two-stage heating (e.g., replacing the single electric resistance heater in a conventional electric dryer with two smaller heaters).<sup>17</sup> Furthermore, as shown in figure 1 below, historical RECS data show that the distribution of clothes dryer age remained largely unchanged between 2005 and 2020 as clothes dryer efficiency improved. Therefore, we do not expect the standards to have any impact on product reliability.

**Figure 1. Distribution of clothes dryer age in RECS 2005, RECS 2009, RECS 2015, and RECS 2020<sup>18</sup>**



Thank you for considering these comments.

Sincerely,

Joanna Mauer  
Deputy Director  
Appliance Standards Awareness Project

*On behalf of—  
American Council for an Energy-Efficient Economy  
Consumer Federation of America  
Consumer Reports*

<sup>17</sup> 89 Fed. Reg. 18183-84. The adopted standard levels are equivalent to EL 4 for electric standard, electric compact (120 V), vented electric compact (240 V) dryers; EL 3 for vented gas standard dryers; and EL 1 for ventless electric compact (240 V) dryers and ventless electric combination washer-dryers.

<sup>18</sup> <https://www.eia.gov/consumption/residential/>.

*Earthjustice*

*National Consumer Law Center, on behalf of its low-income clients*

*Natural Resources Defense Council*

*Northwest Energy Efficiency Alliance*

*Pacific Gas and Electric Company*

*ASAP organizes and leads a broad-based coalition effort that works to advance, win, and defend new appliance, equipment, and lighting standards that cut emissions that contribute to climate change and other environmental and public health harms, save water, and reduce economic and environmental burdens for low- and moderate-income households.*

*ACEEE, a nonprofit research organization, develops policies to reduce energy waste and combat climate change. Its independent analysis advances investments, programs, and behaviors that use energy more effectively and help build an equitable clean energy future.*

*CFA is an association of more than 250 non-profit consumer and cooperative groups that was founded in 1968 to advance the consumer interest through research, advocacy, and education.*

*CR was founded in 1936 at a time when consumers had very few options to gauge the value, quality, or authenticity of goods and services. Today, CR's membership has grown to over 6 million members who fight with their voices and choices for a fair and just marketplace. As a mission-driven, independent, nonprofit member organization, CR continues to empower and inform consumers, incentivize corporations to act responsibly, and helps policymakers prioritize the rights and interests of consumers in order to shape a truly consumer-driven marketplace.*

*Earthjustice is the premier nonprofit public interest environmental law organization, wielding the power of law and the strength of partnership to protect people's health, to preserve magnificent places and wildlife, to advance clean energy, and to combat climate change.*

*NCLC has worked for consumer justice and economic security for low-income and other disadvantaged people in the U.S. since 1969 through its expertise in policy analysis and advocacy, publications, litigation, expert witness services, and training. Throughout its history, NCLC has advocated for policies and programs that increase energy efficiency in the homes of low-income consumers and that, therefore, reduce their energy bills.*

*NRDC is an international nonprofit environmental organization with more than 3 million members and online activists. Since 1970, our lawyers, scientists, and other environmental specialists have worked to protect the world's natural resources, public health, and the environment. NRDC has offices in New York City, Washington, D.C., Los Angeles, San Francisco, Chicago, Bozeman, MT, and Beijing.*

*NEEA is a non-profit organization working to encourage the development and adoption of energy-efficient products, practices, and services. Funded by regional utilities, NEEA is a collaboration of 140 utilities and efficiency organizations working together to advance energy efficiency in the Northwest on behalf of more than 13 million consumers. This unique partnership has helped make the Northwest region a national leader in energy efficiency.*

*PG&E represents one of the largest combined gas and electric utilities in the Western U.S., serving over 16 million customers across northern and central California. As an energy company, PG&E advocates for appliance efficiency standards to cut costs and reduce consumption while maintaining or increasing consumer utility of products. PG&E has a responsibility to its customers to advocate for standards that accurately reflect the climate and conditions of its respective service areas.*