

**COMMENTS OF THE COMPETITIVE ENTERPRISE INSTITUTE ON  
THE DEPARTMENT OF ENERGY'S PROPOSED CONSERVATION  
STANDARDS FOR CLOTHES WASHERS**

Docket No. EE-RM-94-403, 65 Federal Register 59,549 (October 5, 2000)

December 4, 2000

Brenda Edwards-Jones  
U.S. Department of Energy  
Office of Energy Efficiency and Renewable Energy  
Energy Conservation Program Standards  
Docket No. EE-RM-94-403  
1000 Independence Avenue, SW,  
Washington, DC 20585-0121

**I. SUMMARY**

The proposed clothes washer energy conservation standards will impose a substantial and unnecessary burden on American consumers. These proposed rules are in violation of the Energy Policy and Conservation Act, and should not be promulgated.

**II. INTRODUCTION**

The Competitive Enterprise Institute (CEI) is a non-profit public interest organization committed to advancing the principles of free markets and limited government. CEI has a longstanding interest in bringing to light the potentially deleterious consequences of regulations, which are often neglected by federal agencies in their attempts to adopt a regulatory agenda.<sup>1</sup> CEI has previously participated in the clothes washer rulemaking, with a particular focus on the potential consumer impacts.

---

<sup>1</sup> See, e.g., *CEI v. U.S. Department of Transportation*, 856 F.2d 1563 (D.C. Cir. 1988); *CEI v. National Highway Traffic Safety Administration*, 956 F.2d 321 (D.C. Cir. 1992).

As the following comments will explain, CEI believes that the proposed clothes washer rules will have substantial adverse consequences for consumers, thus violating several consumer protections built into the statutory scheme under which DOE claims authority. Therefore, we believe that the proposed rules should either be substantially revised or withdrawn.

### **III. OVERVIEW**

Under the Energy Policy and Conservation Act, as amended (hereinafter referred to as the Act), the Department of Energy (DOE) is authorized to set and periodically amend energy conservation standards for 14 energy-using home appliances, including clothes washers.<sup>2</sup> The previous amended standard for clothes washers took effect in 1994. Shortly thereafter, DOE began the process of amending this standard to make it substantially more stringent. After several years and numerous delays, this revision process culminated in a July 27, 2000 Joint Stakeholders Agreement, in which clothes washer manufacturers and various energy efficiency and other advocacy groups (but no consumer organizations) agreed to mutually acceptable new standards for clothes washers. These proposed standards, the first of which requires a 22 percent reduction in energy use by 2004 and the second of which requires a 35 percent reduction by 2007, were incorporated, without changes, in DOE's October 5, 2000 Notice of Proposed Rulemaking (NOPR).<sup>3</sup>

Beyond the unusual process by which the NOPR was created, the proposed standards break new substantive ground regarding their adverse affect on consumers. This is particularly true of the 2007 standard, which will raise the cost of clothes washers

---

<sup>2</sup> 42 U.S.C. §§ 6291-6317 (1999).

<sup>3</sup> 65 Federal Register 59,549 (October 5, 2000)

by 57 percent (from \$421 to \$661), a far greater percentage increase than in any previous appliance standard.<sup>4</sup> DOE's calculated payback period (the time it takes to earn back the higher purchase price through savings on utility bills) is 7 years, significantly longer than in most previous appliance rulemakings.<sup>5</sup> For example, DOE's most recent energy efficiency standard for refrigerators has a payback period of 4 years.<sup>6</sup> In addition, while most appliance standards to date were predicted to have, at most, only a minor adverse effect on the variety and features of regulated appliances available to consumers, DOE's technical support documents (TSD) indicate a substantial negative impact on clothes washer choice in 2007.<sup>7</sup>

As will be discussed below, DOE's own rulemaking record makes a very weak case for amending the existing clothes washer standards, and the actual negative consequences for consumers will likely be far greater than the agency's analysis indicates. Beyond being bad consumer policy, the proposed standards are in violation of the Act, which requires, among other things, that amended standards be economically justified and preserve consumer choice.

#### **IV. THE PROPOSED STANDARDS VIOLATE THE ACT**

##### **1. DOE Cannot Promulgate Two Standards In One Rulemaking**

The Act sets out specific requirements for promulgating an amended standard. In the NOPR, DOE has violated these provisions by trying to set two standards in one rulemaking, the first taking effect in 2004 and the second in 2007. The Act states that “[a]ny new or amended conservation standard shall be prescribed in accordance with the

---

<sup>4</sup> 65 Federal Register 59,571.

<sup>5</sup> 65 Federal Register 59,552.

<sup>6</sup> DOE Press Release on Refrigerator Energy Efficiency Standards, April 23, 1997.

<sup>7</sup> TSD, Tables 11.11, 11.12.

following procedure...” and proceeds to spell out the procedural requirements applicable to each standard.<sup>8</sup> In addition, the statute requires certain lead times between successive standards to allow the market to adjust. Here, the 2007 standard, coming only 3 years after the 2004 standard, violates the requirement that an amended standard “shall apply to products manufactured after a date which is 5 years after ... the effective date of the previous amendment made pursuant to this part...”<sup>9</sup> Actual lead times aside, the very existence of a statutory scheme that carefully staggers the implementation of new standards argues against the promulgation of two successive standards simultaneously. Thus, the statute clearly sets out procedural requirements and lead times with which the 2007 standard is not in compliance.

## **2. The Proposed Standards Are Not Economically Justified**

A new or amended standard must be “economically justified,” based on the economic impact on manufacturers and consumers, the savings in operating costs over the life of the product, the total projected amount of energy savings, any lessening in product utility or performance, the impact on competition, the need for national energy and water conservation, and other factors the Secretary considers relevant.<sup>10</sup> This important consumer protection prevents DOE from giving its efficiency agenda priority above all other considerations. Here, the proposed standard is not economically justified.

### **A. The Rebuttable Presumption of Economic Justification Was Not Met**

If the payback period for a new or amended standard is three years or less, there is a

---

<sup>8</sup> 42 U.S.C. §6295(p).

<sup>9</sup> 42 U.S.C. §6295(m).

<sup>10</sup> 42 U.S.C. §6295(o)(2)(B)(i).

rebuttable presumption that the standard is economically justified.<sup>11</sup> Here, DOE’s calculated payback period for the 2007 standard is approximately 7 years, more than twice as long as the rebuttable presumption. Though the statute allows DOE to ignore a failure to meet the rebuttable presumption, the fact that the payback period is so much longer than 3 years militates against a determination that the proposed standard is economically justified. In its TSD, DOE does not discuss the wide disparity between its calculated payback period for clothes washers and the rebuttable presumption.

B. DOE Cannot Consider Water Savings In Determining Economic Justification

The Act specifies that any new or amended standard “shall be designed to achieve the maximum improvement in energy efficiency, or, in the case of showerheads, faucets, water closets, or urinals, water efficiency, which the Secretary determines to be technologically feasible and economically justified.”<sup>12</sup> Water efficiency is a factor that applies only to the four listed water-using appliances, and not to clothes washers.<sup>13</sup> By taking water savings as well as energy savings into account, DOE is considering a factor not legally relevant to clothes washer standards. DOE has attempted to justify its use of water savings as one of the “other factors the Secretary considers relevant.”<sup>14</sup> However, this general “catchall” category is preceded by the clear language that only energy savings, and not water savings, is applicable when setting clothes washer standards. In its TSD, DOE has made no attempt to economically justify the standards based on energy savings alone.

---

<sup>11</sup> 42 U.S.C. §6295(o)(2)(B)(iii).

<sup>12</sup> 42 U.S.C. §6295(o)(2)(A).

<sup>13</sup> The 1987 National Appliance Energy Conservation Act empowered DOE to set energy efficiency standards for 14 energy-using appliances, including clothes washers. Water conservation standards were added several years later in the 1992 Energy Policy Act, which applies only to toilets, showers, faucets and urinals.

### C. Several Assumptions Used By DOE Do Not Apply To Many Consumers

In its calculation of payback period and lifecycle costs, DOE has chosen to “assume an average of 392 cycles per year.”<sup>15</sup> As with many of DOE’s assumptions, the agency does not provide enough information to independently determine the reliability of this figure.<sup>16</sup> Obviously, households that do considerably less than 392 loads per year will save considerably less than DOE’s calculated annual savings of \$30, and will have a payback period longer than 7 years.

Recognizing that electricity and water rates vary among users based upon their service area and other factors, DOE has chosen employ a range of marginal utility rates in its analysis, rather than a national average.<sup>17</sup> However, household clothes washer usage rates vary as much or more than utility rates, as DOE’s own analysis attests.<sup>18</sup> Thus, there is no valid reason why DOE should not employ a range of clothes washer usage rates in order to more accurately gauge the consumer impact of the proposed rules.

Similarly, DOE essentially assumes that the initial purchaser of a clothes washer will own it throughout its useful life of 14 years. In reality, most people will change residences (and leave their clothes washer behind) before that time, and indeed a substantial number will change residences before the 7 year payback period has elapsed. According to the U.S. Bureau of the Census, the average median duration in one’s current

---

<sup>14</sup> 65 Federal Register 59,557.

<sup>15</sup> TSD, 10-6.

<sup>16</sup> DOE states that the average comes from a Proctor and Gamble survey, as adjusted using RECS data on household sizes. The Proctor and Gamble survey is not provided, nor is there any discussion of other estimates.

<sup>17</sup> 65 Federal Register 59,559.

<sup>18</sup> TSD, Table 7.2; 10-6.

residence is 5.2 years, 8.2 years for owner-occupied housing units.<sup>19</sup> DOE bases its assumption on the requirement that it consider “the savings in operating costs throughout the estimated average life of the covered product...”<sup>20</sup> However, DOE is also required to consider “the economic impact of the standard ... on the consumers of the products subject to such standards.”<sup>21</sup> Thus, the agency cannot ignore the likelihood that many if not most consumers purchasing a new washer meeting the 2007 standard will not own it long enough to earn back the substantially higher purchase price in the form of energy savings.

D. DOE’s Consumer Subgroup Analysis Understates The Extent Of Adverse Consumer Impacts

DOE’s consumer subgroup analysis is limited to senior households and low income households, and is based entirely on average number of persons per household.<sup>22</sup> Assuming fewer persons (and thus less loads per year) in the average senior household, DOE calculates a payback period of 8.4 years, average lifecycle cost (LCC) savings of \$132, and 71 percent of such households benefiting from the 2007 standard, as compared to 6.8, \$260, and 79 percent for the average household.<sup>23</sup> For low income households, DOE assumes more people per household and more loads per year, and thus calculates a payback period of 6.5 years, LCC savings of \$310, and 81 percent of households benefiting.<sup>24</sup>

---

<sup>19</sup> U.S. Bureau of the Census, Seasonality of Moves and Duration of Residence, October 1, 1998.

<sup>20</sup> 42 §6295(o)(2)(B)(i)(II); 65 Federal Register 59,652.

<sup>21</sup> 42 §6295(o)(2)(B)(i)(I).

<sup>22</sup> TSD, Tables 7.2 and 8.7.

<sup>23</sup> 65 Federal Register 59,573-4.

<sup>24</sup> Id.

DOE ignores all factors other than occupancy, such as the probability that seniors do less laundry per capita due to a lack of work clothes and less active lifestyles. DOE's assertion that low income households will benefit more than average households is contradicted by the agency's own evidence, ignored here, that many low income households will be disproportionately burdened by the higher purchase price of complaint washers.<sup>25</sup> Indeed, DOE's analysis indicates that the predicted price increase from the 2007 standard would force 70 percent of low income households to fix an old clothes washer rather than purchase a new one.<sup>26</sup>

A better subgroup analysis would have included the subgroup of households that, for whatever reasons, do considerably less than the assumed average of 392 loads per year, and/or those who expect to change residences within a specified number of years.<sup>27</sup> Had DOE conducted such an analysis, the agency may well have to concede that a majority of consumers are unlikely to benefit from the 2007 standard.

#### E. DOE Has Overtated The Estimated Cost Savings

In addition to overstating the amount of energy likely to be saved by the proposed rule, DOE has overstated the dollar savings as well. Estimating energy costs well into the future is very difficult, and the US Energy Information Administration forecasts, used by DOE in numerous appliance rulemakings over the past decade, have usually proven

---

<sup>25</sup> TSD, Table J-13.

<sup>26</sup> Id.

<sup>27</sup> It should be noted that most consumers can easily calculate how much laundry they do, and can reasonably estimate how long they expect to stay at their current residence. Thus, there may be a self-identifiable majority of consumers who will not benefit from the 2007 standards. These two criteria alone may well explain why more expensive high efficiency clothes washers currently on the market have a small market share.



too high.<sup>28</sup> DOE further exaggerates the marginal savings from more efficient clothes washers by failing to account for the fixed portion of consumer's utility bills, which does not decline with reduced energy usage.

DOE has also ignored the likelihood of higher repair or warranty costs for clothes washers meeting the new standards, on the grounds that it has no data to that effect.<sup>29</sup> The proposed rules will likely result in the demise of models that have been on the market for many years and that have established a strong track record for reliability. These models will be replaced by substantially new ones, many of which have yet to be introduced, and thus have no repair history to judge. However, this is no reason to ignore such costs, as any market shift from "tried and true" models to new and largely unproven technologies is very likely to result in increased repair costs. For this reason, leading consumer publications recommend clothes washers and other products of proven reliability.<sup>30</sup> The importance of DOE taking into account the likelihood of increased repair or warranty costs is further underscored by the tendency for such costs to increase in high efficiency appliances.<sup>31</sup>

Further, the discount rate used by DOE is too low, thus overstating the present value of the future stream of projected revenues in the form of energy savings.<sup>32</sup> This is particularly so for low income households, for which neither the higher opportunity costs

---

<sup>28</sup> Advance Notice of Proposed Rulemaking comments submitted by Energy Market and Policy Analysis, Inc.

<sup>29</sup> 65 Federal Register 59,562.

<sup>30</sup> Consumer Reports, "Spin City: Ratings Of Washing Machines And Clothes Dryers," July 1999, pp. 30-33; Consumer Reports, "Clean Machines," pp. 32-35.

<sup>31</sup> Consumer Reports, "Way Cool: A Guide To Buying Air Conditioning," June 1998, p. 37 ("Mid-efficiency models ... may be the least expensive to own overall because they're cheaper to buy and less likely to need repair.")

<sup>32</sup> Advance Notice of Proposed Rulemaking comments submitted by Energy Market and Policy Analysis, Inc., Consumer Alert, and Edison Electric Institute.

nor the less advantageous financing options were considered by the agency. DOE concedes that actual consumers employ far higher discount rates in making clothes washer purchasing decisions, ranging from 50 to 100 percent compared to the agency's 6.1 percent.<sup>33</sup> DOE makes the unsupported assertion that consumers are simply acting irrationally or in ignorance of the potential savings. However, retroactive studies of efficiency investments have found that, where such discount rate discrepancies have occurred, it has been the consumers who ultimately prove to be correct.<sup>34</sup>

F. DOE Has Not Established A Legitimate Need For the Estimated Energy Savings

With regard to the need of the nation to conserve energy, DOE concedes that most of the proposed rule's benefits "are likely to be reflected in improvements to the environment, rather than in the security or reliability of the Nation's energy system."<sup>35</sup> By overstating the amount of energy likely to be saved, DOE has also overstated the environmental benefits attributable to reduced energy use. Nonetheless, even assuming DOE's calculated emissions reductions in carbon dioxide, nitrogen oxides, and sulfur dioxide are correct, they do not justify the proposed standards.

DOE's estimated reductions in greenhouse gas emissions, namely carbon dioxide, cannot be taken into consideration by the agency. DOE is specifically forbidden from implementing the Kyoto Protocol, the as yet unratified treaty designed to target carbon

---

<sup>33</sup> 65 Federal Register 59,567, 59,556.

<sup>34</sup> Alex Brill, Kevin Hassett, and Gilbert Metcalf, "Knowing What's Good For You: Energy Conservation Investment and the Uninformed Consumer Hypothesis," American Enterprise Institute, September 1998; Gilbert Metcalf and Kevin Hassett, "Measuring the Energy Savings From Home Improvement Investments: Evidence from Monthly Billing Data," September 1998.

<sup>35</sup> 65 Federal Register 59,557.

dioxide and other greenhouse gas emissions.<sup>36</sup> To the extent DOE relies on its claim that the proposed standards “would result in cumulative greenhouse gas emission reductions of 95.1 metric tons of carbon dioxide equivalent,” the rules are in violation of the law.<sup>37</sup>

The modest nitrogen oxide and sulfur dioxide emissions reductions that the agency attributes to the proposed rules are of too little consequence to warrant new standards. Recent Environmental Protection Agency (EPA) statistics show that ambient concentrations of nitrogen oxides have declined 25 percent since 1980, and sulfur dioxide concentrations by 50 percent.<sup>38</sup> Much of these declines are due to dramatic reductions in utility emissions, and improvements are likely to continue under the existing Clean Air Act regulatory scheme. Given these long-term trends in emissions, the air quality effects of the proposed clothes washer rules are inconsequential.

### **3. The Proposed Standards Would Jeopardize Product Features**

The Act forbids DOE from promulgating an appliance standard that “the Secretary finds is likely to result in the unavailability in the United States in any covered product type (or class) of performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States at the time of the Secretary’s finding.”<sup>39</sup> In other words, DOE is not allowed to sacrifice consumer satisfaction with a regulated appliance for the sake of energy efficiency. Here, the 2007 standard violates this provision, as DOE’s own rulemaking record demonstrates.

---

<sup>36</sup> Department of the Interior and Related Agencies Appropriations Act, 2001, Public Law No. 106-291, § 329.

<sup>37</sup> 65 Federal Register 59,552.

<sup>38</sup> Environmental Protection Agency, “Latest Findings on National Air Quality: 1999 Status and Trends, August 2000.”

<sup>39</sup> 42 U.S.C. §6295(o)(4).

Some clothes washer models meeting the 2007 standard are already available, but less than 10 percent of consumers have chosen them.<sup>40</sup> The reasons for this clear consumer preference for less-energy efficient and typically vertical axis models goes beyond their lower purchase price. Indeed, DOE has documented the particular features valued by consumers in choosing a washer, including capacity, load-size options, durability, water temperature options, door placement, wash time, warranty, and horizontal/vertical axis.<sup>41</sup> One study conducted for DOE concludes that “[m]any consumers significantly desire the features of vertical axis, top loading washing machines.”<sup>42</sup> Previous commenters have confirmed that vertical axis clothes washers have advantages over horizontal axis in several important features, such as wash time and capacity.<sup>43</sup>

Not only does DOE’s TSD establish the features consumers desire (and thus the ones protected under the Act), but the agency also demonstrates that these features are unlikely to survive the 2007 standard intact. For example, in its forecasts of clothes washer shipments, DOE assumes no vertical axis shipments beginning in 2007.<sup>44</sup> If this prediction proves accurate, then consumers will not only be deprived of the vertical axis option itself, but all the characteristics for which vertical axis washers have advantages over horizontal axis.

Elsewhere, the TSD assumes that consumers will be limited to the choice of “front loading machines with hot water wash capability or top loading machines with no

---

<sup>40</sup> 65 Federal Register 59,551.

<sup>41</sup> TSD, Table J-4.

<sup>42</sup> TSD, I-19.

<sup>43</sup> Advance Notice of Proposed Rulemaking comments submitted by General Electric Appliances and Alliance Laundry Systems.

<sup>44</sup> TSD, Tables 11.12 (trial standard level 3), 11.13.

hot water capability.”<sup>45</sup> Nonetheless, whether the proposed rules result in no vertical axis clothes washers or simply vertical axis machines deficient in certain features, the Act has been violated.

In the NOPR, DOE has reversed position and now claims that both vertical axis as well as horizontal machines will be able to meet the 2007 standard.<sup>46</sup> However, nowhere in the TSD is there any support for this assertion, only the extensive analysis to the contrary. If the TSD contains material DOE now deems obsolete, the agency should have withdrawn that material and produced an updated TSD before engaging in this rulemaking.

Specifically, the agency states that a few recent product introductions have now ameliorated all concerns regarding future vertical axis availability.<sup>47</sup> However, DOE provides no information about these models, nor does it state that the vertical axis machines it now claims will meet the 2007 have substantially the same performance characteristics as those available today.

---

<sup>45</sup> TSD, J-3.

<sup>46</sup> 65 Federal Register 59,551.

## V. CONCLUSION

The proposed amended energy conservation standards for clothes washers are not economically justified, and will burden consumers with substantially higher costs and reduced consumer choice and utility. As such, the proposed rules are in violation of the law, and must either be substantially revised or withdrawn.

---

Ben Lieberman  
Policy Analyst  
Competitive Enterprise Institute  
1001 Connecticut Ave, NW  
Suite 1250  
Washington, DC 20036  
(202) 331-1010

---

<sup>47</sup> 65 Federal Register 59,558.