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Public Interest Comment<sup>1</sup> on  
The Department of Energy's Request for Information  
Reducing Regulation and Controlling Regulatory Costs

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The George Washington University Regulatory Studies Center

The George Washington University Regulatory Studies Center improves regulatory policy through research, education, and outreach. As part of its mission, the Center conducts careful and independent analyses to assess regulatory actions from the perspective of the public interest. This comment on the Department of Energy's request for information on reducing regulatory burdens does not represent the views of any particular affected party or special interest, but is designed to improve DOE rulemakings and enhance DOE's retrospective review efforts.

## Introduction

We appreciate the Department of Energy's (DOE) steps to involve the public in its ongoing retrospective review efforts. As DOE notes in its Request for Information (RFI), the public has access to dispersed information that can inform the Department's efforts,<sup>3</sup> and this comment attempts to bring the value of dispersed information to the Department by providing insights from the public interest perspective.

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<sup>1</sup> This comment reflects the views of the author, and does not represent an official position of the GW Regulatory Studies Center or the George Washington University. The Center's policy on research integrity is available at <http://regulatorystudies.columbian.gwu.edu/policy-research-integrity>.

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<sup>3</sup> 82 FR 24583

Through its RFI, DOE is seeking comment from the public on how to effectively review its existing regulations to reduce regulatory burdens pursuant to Executive Orders 13771,<sup>4</sup> 13777,<sup>5</sup> and 13783.<sup>6</sup> This comment addresses four of DOE’s questions for commenters:

(1) How can DOE best promote meaningful regulatory cost reduction while achieving its regulatory objectives, and how can it best identify those rules that might be modified, streamlined, or repealed?

(2) What factors should DOE consider in selecting and prioritizing rules and reporting requirements for reform?

(3) How can DOE best obtain and consider accurate, objective information and data about the costs, burdens, and benefits of existing regulations? Are there existing sources of data DOE can use to evaluate the post-promulgation effects of regulations over time? We invite interested parties to provide data that may be in their possession that documents the costs, burdens, and benefits of existing requirements.

... (9) Are there regulations, reporting requirements, or regulatory processes that are unnecessarily complicated or could be streamlined to achieve statutory obligations in more efficient ways?<sup>7</sup>

In addressing the above questions, this comment offers four recommendations to DOE to further its retrospective review and regulatory reform efforts:

- The Department should consider establishing internal standards for how to regulate when significant proportions of the regulated public would bear net costs, perhaps including a threshold for consumer net costs beyond which standards are considered economically unjustified.
- Instead of proceeding with new rulemakings before the results of previous standards are known, DOE should retrospectively review its previous standards to assess the validity of its *ex ante* analysis before using the same models and assumptions to issue new energy efficiency rules.

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<sup>4</sup> Executive Order 13771, “Reducing Regulation and Controlling Regulatory Costs,” January 30, 2017. 82 FR 9339

<sup>5</sup> Executive Order 13777, “Enforcing the Regulatory Reform Agenda,” February 24, 2017. 82 FR 12285

<sup>6</sup> Executive Order 13783, “Promoting Energy Independence and Economic Growth,” March 28, 2017. 82 FR 16093

<sup>7</sup> 82 FR 24583

- To determine whether the large cost savings that DOE forecasts actually materialize for consumers, the Department should consider ways to collect information on consumer preferences and behavior, such as via surveys or other instruments.
- It would be helpful for DOE to consistently identify which trial standard level it has selected toward the beginning of its appliance rules' preambles so that readers are aware of the standards that DOE is proposing or mandating while reading the accompanying analysis.

## 1) Promoting Meaningful Cost Reductions

As is true for all regulations, there is a distribution of regulatory benefits and costs across the affected public in DOE's efficiency standards, with some consumers benefitting and others experiencing net costs. DOE typically considers what proportion of consumers will bear net costs in its determination of whether a standard is economically justified.

However, it is unclear what threshold DOE is using, if any, to determine what proportion of consumers bearing net costs is too much. For example, in a 2011 rule the Secretary determined that 56% of consumers bearing a net cost for one product class of room air conditioners was economically unjustified.<sup>8</sup> However, in 2015 the Secretary deemed economically justified a proposed standard for dishwashers which would have resulted in net costs for 53% of standard residential dishwasher consumers.<sup>9,10</sup>

One recent example is DOE's standards for split-system central air conditioners, which left a significant share of households bearing a net burden. DOE projected that between 25% and 45% of households will bear a net cost as a result of the efficiency standards, depending on the affected region.<sup>11</sup> The most adversely affected regions are the hot-dry region and the hot-humid region, which together comprise 19 states.<sup>12</sup> These regions include six of the nation's 15 most populous states which alone have a combined 29.6% of the total U.S. population.

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<sup>8</sup> "In particular, the fraction of consumers experiencing an LCC cost is 56 percent for room air conditioners with 8,000-13,999 Btu/h, with louvers, which is the product class with the largest market share. Based on the above findings, the Secretary has concluded that TSL 5 is not economically justified." 76 FR 22556

<sup>9</sup> DOE Proposed Rule, "Table V.3—Average LCC Savings Relative to the Base-Case Efficiency Distribution for Standard Residential Dishwashers." 79 FR 76171.

<sup>10</sup> However, as explained on page 14, due to pushback from the regulated community DOE decided not to finalize these standards.

<sup>11</sup> 82 FR 1832, *Table V-3—LCC Impacts Relative to the No-New-Standards Case for Split-System Central Air Conditioners*.

<sup>12</sup> "The Hot-Dry region is comprised of four states (CA, AZ, NV, and NM); the Hot-Humid region is comprised of 15 mid-Atlantic and Southern States (VA, DE, DC, MD, GA, NC, SC, FL, AL, KY, MS, TN, AR, LA, OK, and part of WV)." The U.S. Department of Energy, *TECHNICAL SUPPORT DOCUMENT: ENERGY EFFICIENCY PROGRAM FOR CONSUMER PRODUCTS: Residential Central Air Conditioners and Heat Pumps*. "Chapter 7: Energy Use Analysis," Footnote c, page 7-4. August 2015.

This standard is not an outlier: many of DOE’s efficiency rules pose net costs for large swaths of the public, including its standards for residential dishwashers,<sup>13</sup> furnace fans,<sup>14</sup> water heaters,<sup>15</sup> room air conditioners,<sup>16</sup> pool heaters,<sup>17</sup> and refrigerators.<sup>18</sup> This indicates that not only is DOE’s current approach internally inconsistent, but it also can lead to net costs for significant numbers of affected consumers. These costs are particularly pernicious because, as DOE’s analyses find, they tend to be particularly burdensome for low-income and elderly households.

In some cases, the Department took substantial net costs for consumers into account after receiving comments from the public, such as in its proposed revisions to the dishwasher standards and its proposed standards for residential gas furnaces. In both cases, DOE received comments noting the considerable costs to consumers that would result from its proposed standards. In response, DOE determined not to pursue its revised dishwasher standards,<sup>19</sup> and issued a revised proposed rule for residential gas furnaces to reduce the burdens on consumers.<sup>20</sup> However, these revisions occurred after significant agency resources were dedicated to developing and publishing proposed standards. A consistent standard for determining how much net cost is too much would preserve these agency resources and prevent consumers from being burdened with insufficiently tailored regulations.

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<sup>13</sup> DOE estimated that 18.7% of consumers would bear net costs, while only 17% of consumers would experience a net benefit (with 64.1% of consumers feeling no impact). 77 FR 31956, *Table V.20—Summary of Results for Residential Dishwasher Trial Standard Levels: Consumer and Manufacturer Impacts*.

<sup>14</sup> DOE estimated that between 24% and 33% consumers of the four most widely-used residential furnace fans (non-weatherized non-condensing gas, non-weatherized condensing gas, weatherized gas, and electric furnace/modular blower fans), which represent 80% of projected shipments through 2045, would experience net costs from the standards. 78 FR 64111 – 64113, *Tables V.2 through V.9*.

<sup>15</sup> DOE estimated that 27% and 33% of Gas-Fired Storage Water Heater and Electric Storage Water Heater consumers, respectively, would bear net costs as a result of its rule. 75 FR 20186, *Tables VI.7 and VI.8*.

<sup>16</sup> DOE estimated that half of the room air conditioner product classes regulated in this standard would result in net costs for between 22.7% and 64.6% of specific product class consumers. (Specific product classes and associated percent of consumers with net costs are as follows: Room Air Conditioners, > 11,000 Btu/h, Without Louvers - 22.7%; Room Air Conditioners, 8,000-13,999 Btu/h, With Louvers - 33.6%; Room Air Conditioners, < 6,000 Btu/h, With Louvers - 64.6%. For one additional product class, Room Air Conditioners, > 25,000 Btu/h, With Louvers, DOE estimated that only 3.5% of consumers would benefit, while 8.9% would experience net costs and 87.6% would feel no impact.) 76 FR 22531 – 3, *Tables V.9 through V.14 at TSL 4*.

<sup>17</sup> DOE estimated that 78% of consumers would either feel no effect of the standard or bear a net cost, while only 22% would benefit. 75 FR 20188, *Table VI.16—Gas-Fired Pool Heaters: LCC and PBP Results*.

<sup>18</sup> DOE estimated that 46% of consumers of top-mount refrigerator-freezers and 42% of consumers of side-by-side refrigerator-freezers would bear net costs from its standard. 76 FR 57565 – 6, *Table VI.5 and Table VI.7*.

<sup>19</sup> Department of Energy Final Rule, “Energy Conservation Program: Energy Conservation Standards for Residential Dishwashers,” 81 FR 90072. December 13, 2016.

<sup>20</sup> Department of Energy Supplemental Notice of Proposed Rulemaking, “Energy Conservation Program: Energy Conservation Standards for Residential Furnaces,” 81 FR 65719. September 23, 2016.

## Opportunities for Reform

To remedy these inconsistencies—and the resulting costs for consumers—the Department should consider establishing internal standards for how to regulate when significant proportions of affected consumers would bear net costs, perhaps including a threshold for consumer net costs beyond which standards are considered economically unjustified. Such an approach would constrain the potential for future rulemakings to impose significant net costs on consumers.

## 2) Priorities for Review

In 1995, the Administrative Conference of the United States provided federal agencies with recommendations on retrospective review, including recommendations for prioritizing rules for review:

Agencies should establish priorities for which regulations are reviewed... In setting such priorities, the following should be considered:

- whether the purpose, impact, and effectiveness of the regulations have been impaired by changes in conditions;
- whether the public or regulated community views modification or revocation of the regulations as important;
- whether the regulatory function could be accomplished by the private sector or another level of government more effectively and at a lower cost; and
- whether the regulations overlap or are inconsistent with regulations of the same or another agency.<sup>21</sup>

Applying these criteria to DOE’s regulatory portfolio can provide the Department with clarity on how to select rules for review. In addition to these guidelines, DOE should review the effects of its existing standards before amending them to ensure that its initial assumptions are accurate and that the forecasted benefits are materializing for consumers.

## Conduct Review before Amending Standards

The Energy Policy and Conservation Act of 1975 (EPCA), as amended, requires DOE to determine at six-year intervals whether updated energy efficiency standards are necessary,<sup>22</sup> and to promulgate a new standard if DOE makes such a determination. Despite this regular

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<sup>21</sup> Administrative Conference of the United States, “Review of Existing Agency Regulations,” Recommendation 95-3. Adopted June 15, 1995. Pages 3 – 4. <https://www.acus.gov/sites/default/files/documents/95-3.pdf>

<sup>22</sup> 42 U.S.C. 6295(m)(1)

determination process, DOE does not interpret EPCA to require evaluation of its existing standards and their effects on regulated entities and consumers.

The EPCA's six year review timeframe has led to multiple occasions on which DOE has determined that such updates are necessary very shortly after implementation of its previous standards and without allowing time for an evaluation of the standards' effectiveness. This approach does not allow the Department to learn from implementation of past standards before issuing new rules, which is particularly important given that EPCA precludes DOE from reversing the stringency of its standards once in place.<sup>23</sup>

Instead of proceeding with new rulemakings before the results of previous standards are known, DOE should retrospectively review its previous standards to assess the validity of its *ex ante* analysis before using the same models and assumptions to issue new energy efficiency rules. This will allow DOE to measure the efficacy of its assumptions and to use actual (rather than hypothesized) baselines in its *ex ante* analyses, improving the quality of analysis and regulatory outcomes.

DOE should also consider mitigating factors that could have accomplished or undermined reductions in energy consumption absent the rule (e.g. energy prices, potential rebound effects, unintended consumer behaviors, etc.). DOE should measure the environmental benefits of its previous rules to improve its *ex ante* analyses of energy efficiency standards going forward.

### **3) Data on Regulatory Benefits, Costs, and Burdens**

DOE tends to conduct detailed *ex ante* analyses of the costs and energy savings associated with its proposed rules, but these (necessarily) are heavily dependent on assumptions about producer and consumer behavior and product lifespans. If these assumptions are incorrect, these rules create burdens for many households instead of the forecasted benefits. To determine whether the large cost savings that DOE forecasts actually materialize for consumers, the Department should consider ways to collect information on consumer behavior, such as via surveys or other instruments.

For example, in 2001 DOE finalized an energy conservation standard for residential clothes washers that relied on questionable assumptions about appliance usage. To calculate cost savings, the Department assumed that households used their clothes washers 392 times per year, or more frequently than once per day. While this assumption was based on data from Proctor & Gamble,<sup>24</sup> it doesn't necessarily reflect the experiences or behaviors of most households. In fact, a subsequent Rasmussen Research survey of 1,997 consumers found that only 15% of

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<sup>23</sup> National Appliance Energy Conservation Act of 1987, codified at 42 U.S.C. 6295(o)(1)

<sup>24</sup> 65 FR 59561

respondents used their clothes washer as frequently as DOE assumed, and nearly 70% of respondents did not use their appliance frequently enough to break even on DOE's proposed standards.<sup>25</sup> This survey, which was initiated by an independent university-based research center, may provide a blueprint for how DOE can collect data on consumer behavior to inform its future rules as part of its retrospective review efforts.<sup>26</sup>

DOE frequently makes use of survey data from the Residential Energy Consumption Survey (RECS), a recurring survey conducted by the Energy Information Administration. Where these data are not available or when DOE chooses to normalize these data to fit its specifications, they may not represent actual consumer behaviors. Below are three examples of assumptions about consumer behavior and energy usage that could be measured *ex post* by survey data or other measures to ensure that regulatory burdens on consumers and households are minimized.

In setting its 2011 standards for residential furnaces, air conditioners, and heat pumps,<sup>27</sup> DOE relied on an assumption that households will heat or cool their households relative to a threshold of 65 degrees Fahrenheit.<sup>28</sup> For example, DOE derived annual energy use for these appliances based on the idea that they would be running on days below/above this temperature threshold for any region. In reality, many households likely use very different heating and cooling thresholds depending on insulation, energy prices, and time of day, among other considerations. For example, many households may turn off the heat or the air conditioning during the day while the occupants are at work, regardless of temperature. If households respond differently than DOE's equation suggests, the result may be lower appliance usage—and a lower payoff from increased efficiency—than DOE's analysis assumes. In such cases, an *ex post* analysis can verify which assumptions were accurate, which helps in turn to improve future *ex ante* analysis of consumer behavior and energy use.

On the other hand, DOE's 2011 standards for residential clothes dryers had access to survey data on the frequency of clothes washer use from the RECS (295 annual wash cycles, a significant decrease from the 392 annual wash cycles that DOE projected in 2001).<sup>29</sup> Despite the fact that RECS data indicate that about 84% of all washed loads are dried, the Department assumed 283

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<sup>25</sup> For example, see the survey results in: *Addendum to Public Interest Comment on the Department of Energy's Proposed Clothes Washer Efficiency Standards*. Docket No. EE-RM-94-403. Arlington, VA: Mercatus Center Regulatory Studies Program. 2000.

([http://mercatus.org/sites/default/files/publication/Clothes\\_Washer\\_Standards.pdf](http://mercatus.org/sites/default/files/publication/Clothes_Washer_Standards.pdf))

<sup>26</sup> This independently-commissioned survey was later confirmed by the findings of the Residential Energy Consumption Survey, which estimated that consumers on average use 295 wash cycles per year.

<sup>27</sup> 76 FR 37407

<sup>28</sup> U.S. Department of Energy (DOE), "Technical Support Document: Energy Efficiency Program for Consumer Products: Residential Air Conditioners, Heat Pumps, and Furnaces," June 2011, page 7-7, 7-15.

<sup>29</sup> U.S. DOE, "Technical Support Document: Energy Efficiency Program for Consumer Products and Industrial Equipment: Residential Clothes Dryers and Room Air Conditioners," April 2011, page 7-4.

dryer cycles per year rather than ~250 ( $295 \times 0.84 = 247.8$ ). In this case, even with survey data available DOE used other assumptions on consumer behavior that could alter whether many households benefit from increased standards.

In another case, the fundamental analytical assumptions on which the benefit-cost analysis hinged pertained to product lifespan. In its 2012 direct final rule setting energy efficiency standards for dishwashers, DOE estimated that the average product lifespan of a residential dishwasher was 15.4 years,<sup>30</sup> despite the availability of RECS and manufacturer data which put the estimated product lifespan at 9 – 10 years.<sup>31,32</sup> This discrepancy is particularly notable because these increases in energy and water efficiency do not pay off for the average consumer for 11 years, at which point RECS and industry data indicate that many appliances are no longer functioning.

### Opportunities for Reform

In each of the cases listed above, *ex ante* verification of these behavioral assumptions would have been ideal. Retrospective review provides an opportunity for the Department to revisit these assumptions *ex post* and identify areas where incorrect assumptions created burdens for regulated households by projecting a higher, less realistic payoff from more efficient appliances. In doing so, DOE should consider how to use survey data to confirm its hypotheses about consumer behavior, which are crucial to the success of any appliance efficiency standard.

## 9) Streamlining Regulatory Processes

### Transparency regarding Trial Standard Levels

DOE compares several regulatory alternatives of varying stringency when regulating appliance efficiency. Each of these stringency levels is represented by a trial standard level, or TSL, throughout the regulatory text. However, it can often be difficult to locate in the regulatory preamble which TSL the Department is proposing, which creates an obstacle for consumers and others who might be interested in participating in the rulemaking process.

DOE rulemakings include a section dedicated to examining the various TSLs and their associated impacts. This section details how and why DOE concluded to pursue one TSL over the others. However, because it is located toward the end of the preamble, this information can

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<sup>30</sup> U.S. DOE, “Technical Support Document: Energy Efficiency Program for Consumer Products and Industrial Equipment: Residential Dishwashers,” May 2012, page 8-21.

<sup>31</sup> U.S. Energy Information Administration (EIA), “Home Appliance Characteristics by Type of Housing Unit,” 2005 RECS Survey Data, <http://www.eia.gov/consumption/residential/data/2005/hc/pdf/tablehc2.9.pdf>.

<sup>32</sup> Appliance Magazine, “32nd Annual Portrait of the Appliance Industry,” September 2009. Page 37, *The Life Expectancy/Replacement Picture*.

be difficult to find. In addition, DOE’s technical support documents, which contain extensive analyses on regulatory impacts, do not typically note upfront which TSL DOE is proposing or mandating.

Although DOE discusses its proposed or final standards at length throughout the regulatory text, it is not in the context of which TSL is being prescribed. This is especially important because DOE typically relates effects on consumers based on TSLs, and without providing information on which TSL DOE is pursuing upfront, these effects can be obscured.

Going forward, it would be helpful for DOE to consistently identify which TSL it has selected toward the beginning of the preamble, so that readers are aware of the standards that DOE is proposing or mandating while reading the accompanying analysis.

### **Avoiding Direct Final Rules**

The EPCA currently grants DOE the authority to issue energy efficiency standards via direct final rule (DFR), which allows the Department to issue a standard in final form without going through the traditional notice-and-comment process. This authority is limited to circumstances where DOE receives:

a statement that is submitted jointly by interested persons that are fairly representative of relevant points of view (including representatives of manufacturers of covered products, States, and efficiency advocates), as determined by the Secretary, and contains recommendations with respect to an energy or water conservation standard...<sup>33</sup>

In such a case, the Department may issue a DFR to establish the jointly recommended standards.

Between 2010 and 2014, DOE used this mechanism to implement standards for dishwashers,<sup>34</sup> residential central air conditioners and heat pumps,<sup>35</sup> clothes washers,<sup>36,37</sup> and room air conditioners.<sup>38</sup> DOE estimated that together these rules would result in \$1.15 billion in costs to consumers and \$4.25 billion in benefits (2010\$).<sup>39</sup> These are large rules that merit careful

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<sup>33</sup> Public Law 94–163, as Amended. “ENERGY POLICY AND CONSERVATION ACT,” §325 (p)(4)(A).  
<http://legcounsel.house.gov/Comps/EPCA.pdf>

<sup>34</sup> 77 FR 31917

<sup>35</sup> 76 FR 37407

<sup>36</sup> 77 FR 32307

<sup>37</sup> 76 FR 22453

<sup>38</sup> 76 FR 22453

<sup>39</sup> See the totals for RINs 1904-AC64, 1904-AA89, 1904-AB90, and 1904-AC06 in Appendix B of: Sofie E. Miller, “Whose Benefits Are They, Anyway? Examining the Benefits of Energy Efficiency Rules 2007 – 2014.” *The George Washington University Regulatory Studies Center*, September 2, 2015.

consideration and review rather than a direct final rulemaking that diverges from the traditional rulemaking process.

As far as direct final rules are concerned, EPCA is a statutory exception to the rule. As Susan Dudley and Jerry Brito explain in *Regulation: A Primer*:

The [Administrative Procedure Act] provides “good cause” exemptions to the informal rulemaking notice-and-comment requirements if the regulatory agency can show that traditional procedures are “impracticable, unnecessary, or contrary to the public interest”... Agencies will also sometimes use Direct Final Rules (DFRs) to issue regulations considered “routine or noncontroversial,” relying on the “unnecessary” component of the “good cause” exception. For example, the EPA routinely issues DFRs to approve revisions to state implementation plans under the Clean Air Act, and these generate little or no public comment. DFRs become effective on a certain date unless the agency receives adverse public comment. If it does, it must withdraw the rule, but it may commence regular informal notice-and-comment rulemaking to promulgate the regulation.<sup>40</sup>

Direct final rules can cut consumers out of the rulemaking process and provide an opportunity for businesses to restrict competition. DOE should be particularly cautious before enacting new efficiency standards via direct final rule given the significant economic burden they pose to U.S. households and the lack of a consumer voice in the negotiated rulemaking process.

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<https://regulatorystudies.columbian.gwu.edu/whose-benefits-are-they-anyway-examining-benefits-energy-efficiency-rules-2007-2014>

<sup>40</sup> Susan E. Dudley & Jerry Brito. Chapter 4, “The Regulatory Process: How the Sausage is Made” in *Regulation: A Primer*, 2<sup>nd</sup> Ed. *Mercatus Center at George Mason University and the George Washington University Regulatory Studies Center*. 2012.