

**Testimony of Mr. Andrew deLaski,  
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**Before the U.S. House of Representatives  
Committee on Energy and Commerce  
Energy Subcommittee**

**Hearing on:**

**“Wasted Energy: DOE’s Inaction on Efficiency Standards and Its Impact on  
Consumers and the Climate”**

**March 7, 2019**

## **The National Appliance Standards Program: A Foundation for US Energy Policy Threatened by the Trump Administration's Wrecking Ball**

### *Testimony Summary*

The Department of Energy's (DOE) appliance standards program, first created by Congress in the 1970s and repeatedly revised and expanded on a bipartisan basis since, sets a floor for efficiency for everyday products bought by consumers and business. It is among the nation's most effective laws for saving energy, providing an essential foundation for American energy policy. The energy savings from appliance standards translate into pocketbook savings for consumers and businesses, create jobs, make our energy systems more resilient and reliable, foster technological innovation, and reduce emissions that harm public health and the environment.

- The typical household spends about **\$500 less per year on utility bills** than if there had never been any standards. That's equal to 16% of an average household's utility bills.
- For businesses, which also buy and use products covered by standards, annual savings total about **\$23 billion**.
- All told, standards on the books today will have saved consumers and businesses **\$2 trillion by 2030**.
- Research shows that standards **boosted the number of domestic jobs by about 300,000** in 2016.
- Saving energy with improved efficiency standards helps make our **energy systems more resilient, reliable and affordable**.
- US carbon dioxide emissions in 2020 will be **345 million metric tons lower** because of existing energy-saving standards.

Unfortunately, over the past two years the national appliance standards program has been seriously mis-handled by DOE. As a result, forward progress on new standards has come to a standstill. Worsening matters, the Department has moved to eliminate existing standards for light bulbs, which are statutorily required and will save more than any other single standard ever established. At the same time, the Department released a proposal, two years in the making, that re-writes the agency's procedures for developing future standards. While DOE's administration of the program can undoubtedly be improved, the recent proposal makes it much harder to set or upgrade standards and cedes too much control to manufacturers. In addition, the Department has abused its enforcement discretion in attempts to void duly-promulgated standards, and now contemplates a gas industry petition that would eliminate the potential for any meaningful improvements to standards for many appliances that use natural gas. In sum:

- DOE has **missed 16 statutory deadlines** for completing reviews to determining if current standards should be revised and is on track to miss another 12 by January 2021.
- DOE has **proposed to eliminate the 2020 light bulb standards** by rescinding the rule that expanded standards to most everyday light bulbs and asserting that a statutory backstop standard does not apply. Elimination of the 2020 light bulb standards would cost the typical US household about \$115 per year in lost savings.

- DOE has **proposed an unnecessary re-write of its standards development “Process Rule”** that will, at best, make the already-thorough standards development process more drawn out and, at worst, handcuff the agency from pursuing future improvements for many standards.
- DOE has **abused its enforcement discretion** to issue broad policies that negate a duly-promulgated standards for furnace fans.<sup>1</sup>
- DOE now contemplates a petition from the gas industry that, reversing policies established during the Bush administration and continued during the Obama administration, **would eliminate consideration of condensing technology, the single-most important opportunity for improving gas appliance efficiency.**

These actions harm consumers, needlessly increase energy waste, and violate the law. They also represent a sharp break from how this program has been handled across prior administrations, both Republican and Democratic. Congress enacted all the major national appliance standards laws on a strong bipartisan basis, and a Republican president signed each into law. Although the program has been beset by missed deadlines in the past, no prior administration has so thoroughly sought to thwart laws enacted by Congress as the current one. **Instead of building on the foundational energy policy of national appliance standards, this administration has taken a wrecking ball to it.** The consequences will be higher utility bills for consumers, increased strain on our energy systems, more uncertainty for business, and needlessly higher levels of climate change and other pollution.

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<sup>1</sup> DOE withdrew its non-enforcement policy on furnace fans when the industry group that had requested it changed its mind.

## **The National Appliance Standards Program: A Foundation for US Energy Policy Threatened by the Trump Administration's Wrecking Ball**

### *Detailed Testimony*

#### **I. INTRODUCTION**

My name is Andrew deLaski and I am the Executive Director of the Appliance Standards Awareness Project or ASAP. ASAP is a coalition project led by a Steering Committee consisting of representatives of efficiency advocacy organizations, state government, consumer and environmental organizations and utilities. ASAP works to advance and defend new appliance, equipment and lighting standards which deliver large energy and water savings, monetary savings and environmental benefits. I have been the Executive Director of ASAP since its founding in 1999 and have worked extensively on both national and state standards over the past two decades. I have been intensively involved in Department of Energy (DOE) rulemakings under four administrations and contributed to the development of the standards provisions in the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. I have co-authored more than a dozen papers and reports related to appliance, equipment and lighting standards. I also served as co-chair of the Appliance Standards and Rulemaking Federal Advisory Committee or ASRAC, charged with assisting the agency develop new consensus-based standards from 2012 until the end of 2018. At the state level, I have been involved in helping to advance standards in more than a dozen states that have enacted their own laws.

Saving energy has long been an area of bipartisan agreement and a cornerstone of US energy policy over the past several decades. Cost-effective energy-efficiency investments lower utility bills for both households and businesses, boosting the economy, improving U.S. competitiveness and creating jobs. Saving energy also strengthens the reliability and resiliency of our energy systems. For example, when the polar vortex strikes, efficient furnaces moderate the demand for gas, helping to keep the gas distribution system working. On sweltering summer days, more efficient air conditioners mean less strain on our electric grids, reducing the risks of costly power outages. More generally, whether the nation is enjoying a period of energy abundance or during times of energy scarcity, efficiency allows reliance on lower-cost energy resources, contributing to lower wholesale energy prices. Finally, reducing energy waste conserves domestic energy resources, strengthening America's position in global markets both today and in an uncertain future. Using less energy eases America's transition to cleaner energy sources and directly reduces emissions that harm public health and contribute to climate change.

Minimum appliance, equipment and lighting standards are an essential foundational policy for improving energy efficiency. Analysis by the American Council for an Energy-Efficient Economy (ACEEE) shows that minimum standards have done more to save energy than any other federal policy, excepting vehicle fuel economy standards. According to DOE, standards in place today will save about 142 quadrillion Btus ("quads") of energy by 2030 while reducing US consumer and business energy bills by \$2 trillion. For comparison, the entire US economy uses about 100 quads per year.<sup>2</sup>

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<sup>2</sup> US Department of Energy fact sheet. "Saving Energy and Money with Appliance and Equipment Standards in the

In this testimony, I will first briefly summarize the key features of the national appliance standards program. I will next summarize the benefits of standards currently in place. Third, I will describe how over the past two years DOE has mis-handled this critical program and **has effectively taken a wrecking ball to this foundational energy policy**. The final section addresses the effect of DOE's mishandling of the program on manufacturers.

## II. KEY PROGRAM FEATURES

Congress enacted the original national appliance standards law in 1975 and has since updated and revamped it several times to address the nation's evolving national energy policy needs. These major amendments to the law include the 1987 law signed by President Reagan that adopted initial standards for thirteen common household products; the 1992 law signed by President George H.W. Bush that extended the national program to major categories of commercial building equipment, lighting products and plumbing products; and the 2005 and 2007 energy laws signed by President George W. Bush that added about 25 additional product categories. Congress enacted each of these laws on a strong bi-partisan basis.

The trade-off between federal and state authority is a fundamental feature of the national appliance standards law. **Federal standards are broadly preemptive of state standards** for the covered products. This feature provides manufacturers, distributors and retailers a single national standard. In exchange, Congress put the responsibility for keeping standards up-to-date with technological change on DOE. Subject to criteria spelled out by Congress, including impacts on consumers, product utility, manufacturers and utilities, DOE must update standards to reflect the maximum level of efficiency that is "technologically feasible and economically justified" (42 US Code 6295(o)(2)). In sum, Congress preempted the states and, in exchange, imposed **a federal obligation to do the job of keeping standards up-to-date**.

DOE's track record on meeting legal deadlines was poor until 2006, when Congress and the courts intervened. Active Congressional oversight and a consent decree put DOE on track to catch up on 22 missed legal deadlines. In 2007, Congress enacted a sweeping requirement that DOE review all standards and the underlying test procedures periodically. Under the 2007 amendments, DOE must review each standard once every six years. DOE can either conclude that no change is warranted or propose a modified standard. If DOE proposes a modified standard, a final revision is due within an additional two years. Thus, if DOE proposes a new standard, that revision would be in place no later than eight years after the prior change.

Between 2006 and 2017, DOE caught up on the entire backlog of overdue standards (completed by 2013) and met a range of new product specific deadlines established by the 2005 and 2007 energy laws, completing about 50 new or revised standards and many test procedure updates resulting in very large energy and economic savings. DOE had just begun to implement the 2007 law's requirements for regular reviews at the beginning of the current administration. None of the three reviews completed to date under the regular reviews provision have been controversial: one resulted in no change to the standard and the other two changes were broadly supported by manufacturers and others.<sup>3</sup>

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United States." January 2017. Last accessed on 3/3/2019

<sup>3</sup> DOE reviewed the standards for direct heating equipment and determined to leave it unchanged. DOE revised the

Another key provision of the national law is **anti-backsliding** (42 US Code 6295 (o)(1)). Under this provision, no new standard can be weaker than the existing standard for that product. The anti-backsliding provision provides regulatory certainty, enabling manufacturers to invest with confidence, and protects consumers. The law does provide for limited waivers and other tools to address specific unexpected difficulties that might arise with a given standard.

### **III. BENEFITS OF THE NATIONAL STANDARDS PROGRAM**

National appliance standards save consumers money, improving the affordability of their monthly utility bills. The pocketbook savings from standards get re-spent and invested by consumers and businesses, providing a boost to local economies, helping with job creation. Reduced demand for electricity and natural gas also makes energy systems more resilient, curbing the need for expensive investments that are ultimately paid for by consumers. Reducing the amount of fossil fuel burned in power plants and directly in appliances such as furnaces puts a dent in the emissions that contribute to climate change as well as other public health problems. Each of these benefits are detailed further below.

#### ***A. Affordability***

Altogether, according to a recent study by my organization together with ACEEE, a typical U.S. household spends about \$500 less on their utility bills each year than they would have if no appliance standards had been adopted. These savings work out to about 16% of the typical household's utility bill spending.<sup>4</sup> Perhaps no other policy enacted by Congress has done as much to keep energy bills affordable for the typical US household.

Standards also improve efficiency for a suite of the most common products used in commercial buildings and industry, including lighting, HVAC equipment, motors, and refrigeration products. Altogether, businesses are saving about \$23 billion per year due to existing standards.<sup>5</sup> These savings improve the competitiveness of American industry, get plowed back into product innovation and help the bottom line. By 2030, cumulative total savings for consumers and businesses from existing standards will reach \$2 trillion.<sup>6</sup>

#### ***B. Job Creation***

Saving energy boosts employment. When consumers and businesses spend or invest the money saved on utility bills, economic activity increases. An economic study by ACEEE and ASAP published last year estimated that savings from standards resulted in 300,000 more jobs in the U.S. economy in 2016 than would have been the case absent any standards.<sup>7</sup> As the savings from standards grow, so do the job creation effects. By 2020 the job creation impact of standards will

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standards for dehumidifiers through the regular rulemaking process and, for central air conditioners and heat pumps, convened a stakeholder negotiation that developed recommendations that DOE adopted.

<sup>4</sup> deLaski, A. and J. Mauer. "Energy Saving States of America." ASAP and ACEEE. February 2017. p 1.

<sup>5</sup> Ibid. p. 6.

<sup>6</sup> US Department of Energy fact sheet. "Saving Energy and Money with Appliance and Equipment Standards in the United States." January 2017. Last accessed on 3/3/2019.

<sup>7</sup> Stickles, B., J. Mauer, J. Barrett, A. deLaski. *Jobs Created by Appliance Standards*. ACEEE and ASAP. July 2018. Available at [https://appliance-standards.org/sites/default/files/Jobs\\_Report.pdf](https://appliance-standards.org/sites/default/files/Jobs_Report.pdf)

grow to about 400,000 jobs.

### *C. Energy System Benefits*

Saving energy with improved efficiency standards helps make our energy systems more resilient, reliable and affordable. When the polar vortex or an extreme summer heat wave strikes, the efficiency of the installed stock of products such as furnaces and air conditioners matters enormously. By reducing the overall level of demand during extreme weather events, efficiency can make the difference between the energy system holding up or breaking down. Over the longer term, the level of product efficiency affects what investments are needed to ensure electric or gas system reliability. Since these investments are paid for by ratepayers one way or another, by keeping demand levels in check, efficiency standards help moderate energy prices. Consumers, especially the elderly on fixed incomes or low-income families, suffer the most when they cannot afford to keep their thermostats at levels most would consider necessary for basic comfort.

### *D. Environmental and Public Health Benefits*

By reducing the amount of fossil fuel burned in power plants and by furnaces and other products in our homes and businesses, standards are reducing emissions that contribute to climate change. US carbon dioxide (CO<sub>2</sub>) emissions in 2020 will be **345 million metric tons lower** because of existing energy-saving standards, an amount equal to the annual emissions of more than 70 million cars.<sup>8</sup> For perspective, the entire US economy emitted about 5.2 billion metric tons of carbon dioxide in 2018.<sup>9</sup> Thus, the annual CO<sub>2</sub> savings rate in 2020 equals more than 6% of current year emissions. Few other policies in place today are doing as much to curb climate change emissions.

Over time, the cumulative effect of standards on emissions is enormous. In his exit memo issued upon leaving his post as Secretary of Energy, Ernest Moniz reported that standards set during the Obama administration would reduce US carbon dioxide emissions by three billion metric tons cumulatively by 2030.<sup>10</sup> Counting all standards since 1987, standards will save almost eight billion metric tons of carbon dioxide by 2030 according to DOE.<sup>11</sup>

Reducing wasteful use of fossil fuel also reduces emissions of other pollutants, including nitrogen oxides, sulfur dioxide, particulates and mercury. These pollutants contribute to a wide range of public health and environmental problems including asthma and other respiratory problems, acid rain, and toxic poisoning of fish and wildlife. While these pollutants are subject to specific regulatory limitations in some cases, by reducing fossil fuel usage, appliance standards help to rein their emissions.

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<sup>8</sup> US Department of Energy fact sheet. "Saving Energy and Money with Appliance and Equipment Standards in the United States." October 2016.

<sup>9</sup> US Energy Information Administration. "U.S. energy-related CO<sub>2</sub> emissions expected to rise slightly in 2018, remain flat in 2019" February 8, 2019.

<sup>10</sup> Secretary Ernest Moniz. US Department of Energy. Cabinet Exit Memo, January 5, 2017.

<sup>11</sup> US Department of Energy fact sheet. "Saving Energy and Money with Appliance and Equipment Standards in the United States." October 2016.

#### IV. DOE IS MIS-HANDLING THE NATIONAL STANDARDS PROGRAM

In 2019, the national appliance standards program is badly off track. The current administration has mishandled its stewardship of this critical energy policy in five major ways. First, DOE has missed statutory deadlines to review the standards for 16 products and is on track to miss another dozen deadlines by January 2021 (detailed below). The agency even missed more than 20 of its own self-imposed deadlines *just within the past three months*. Second, the administration seeks to eliminate the 2020 national light bulb standards, potentially costing the typical US household about \$115 per year in lost savings. Third, DOE has spent the last two years working on a proposed rework of its “Process Rule,” its guidance on how it develops standards, that will make updating standards far more difficult and that cedes too much control to manufacturers. Fourth, in an abuse of its enforcement discretion, the agency has sought to undo duly-promulgated standards. Finally, the agency is now contemplating a gas industry petition that would effectively prevent future standards that would save meaningful amounts of natural gas.

##### ***A. Missing deadlines could put \$65 billion per year in bill savings at risk.***

As described above, DOE is legally obligated to review each standard according to a schedule established by Congress. As of today, DOE has missed 16 legal deadlines affecting a range of products including refrigerators, clothes dryers, water heaters and room air conditioners. Appendix A includes the full list of products for which DOE has missed legal deadlines.

DOE publishes a schedule for its work as part of the semi-annual regulatory agenda. The most recent regulatory agenda, published in November 2018, showed more than 20 interim DOE actions scheduled for completion between then and mid-February.<sup>12</sup> DOE failed to complete any of those actions on schedule. By failing to complete these interim steps spelled out by DOE in its own regulatory plan, the agency is not only falling further behind the already-missed statutory deadlines, but also putting itself on track to miss all its upcoming deadlines. The agency likely will miss another dozen statutory deadlines by January 2021.

DOE has also missed more than a dozen legal deadlines for reviewing test procedures used for measuring efficiency.<sup>13</sup> These test procedures underpin the minimum standards. With good reason, manufacturers have stressed the need to complete test procedure revisions in advance of standards reviews. By delaying test procedure work, a key aspect of the standard-setting process, DOE could be in a position of having to revise standards before test procedures have been adequately reviewed or of having to use old test procedures without addressing useful updates.

Missing these deadlines will impose severe costs measured by lost energy savings and bill reductions. We estimate that standards for which federal law requires review by early 2025 have the potential to reduce consumer and business utility bills by \$43 billion annually by 2035 growing to \$65 billion annually by 2050. Cumulative savings could reach \$1.1 trillion by 2050.<sup>14</sup>

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<sup>12</sup> These recently missed self-imposed deadlines include 7 related to standards reviews and development and 15 related to test procedure reviews.

<sup>13</sup> These include the test procedures for exit signs, metal halide light fixtures, small motors, traffic signals, water source heat pumps, room air-conditioners, fluorescent lamp ballasts, commercial ice makers, general service fluorescent lamps and other products.

<sup>14</sup> A. deLaski, J. Mauer et al. “Next Generation Standards: How the National Energy Efficiency Standards Program Can Continue to Drive Energy, Economic, and Environmental Benefits.” Appliance Standards Awareness Project and American Council for an Energy-Efficient Economy. August 2016. p vii.



***B. Eliminating the 2020 light bulb standards would cost households \$115 per year.***

Spurred in part by the 2007 energy law, the US has led innovation in LED technology. LED light bulbs now cost as little as \$2 apiece, use a fraction of the electricity of old-style light bulbs and are available in virtually all shapes and sizes. The 2007 law ensured that strengthened 2020 standards will apply to the most common light bulb shape, the pear-shaped A-lamp. Congress also directed DOE to determine which other light bulbs shapes and sizes are commonly used to light up our homes and apply the same standards to those products. DOE made this determination in January 2017, extending the 2020 standards to other light bulbs shapes and sizes including cone-shaped reflector light bulbs and candelabra bulbs used in wall sconces and chandeliers. Altogether, there are about 2.7 billion sockets in the United States that use these bulb types, nearly equal to the number with A-lamps.

Last month, DOE proposed to rescind the agency's decision to apply the 2020 light bulb standards to most of the light bulb types commonly used in US homes. DOE has further asserted that the legislative backstop standard, required by Congress in the event DOE did not complete a new standard by 2017 (the agency did not), does not apply. Failure to implement and enforce the backstop standard for the full range of bulbs commonly used in US homes would cost the average US household about \$115 per year in lost bill savings. US electricity use would increase by about 90 billion kilowatt hours per year, roughly the consumption of all the households in Pennsylvania and New Jersey combined.<sup>15</sup>

***C. DOE's proposed re-write of the "Process Rule" would make it harder to improve standards.***

While DOE has been missing one deadline after another, the agency has been spending its time and effort over the past two years on re-writing the agency's "Process Rule." This rule, written in 1996 and supplemented by additional guidance since then, describes how the agency develops new standards. In general, the process for developing standards worked well from 2006 to 2017. The process employed is transparent, data-driven and comports with the law. A high portion of new standards enjoyed consensus support among stakeholders, and very few landed in litigation.

While even a good process can undoubtedly be improved, DOE's two-year effort to re-write the Process Rule has resulted in a proposal that is designed to hamstring agency development of future standards. Problems with the proposed revised Process Rule include several additional steps that will further draw out the already lengthy standards development process (creating new opportunities for litigation), minimum savings thresholds that put new standards for many products off limits, and new limitations on rulemaking processes intended to foster consensus. For example, the agency has until now interpreted its Direct Final Rule authority to allow for negotiators to select different compliance dates or more than one compliance date. Often, given a little more time to comply, manufacturers can support higher efficiency levels. A recent negotiated standard for air conditioners aligned the DOE compliance date with anticipated refrigerant changes. The proposed rule would eliminate the ability to consider alternate compliance dates as part of a negotiated standard.

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<sup>15</sup> ASAP and ACEEE. "US Light Bulb Standards Save Billions for Consumers but Manufacturers Seek a Rollback" July 2018.

The proposal also cedes far too much control to manufacturers. Test procedures provide the “rules-of-the-road” for determining compliance with standards. The proposal compels DOE to generally adopt industry test procedures without modification, even if improvements are possible. Manufacturers play a leading role in developing efficiency levels for equipment in ASHRAE 90.1, which is a commercial building energy code. The proposed process would make it exceedingly difficult for DOE to adopt national equipment standards different than those developed by ASHRAE. For example, a new standard for roof-top air conditioners completed in 2016 based on the work of an ASRAC consensus negotiation committee will save 15 quads of energy over thirty years by going significantly above the ASHRAE levels. The proposed revisions to the Process Rule would likely have short-circuited the process that led to that important standard.

The combined effect of the proposed Process Rule revisions will be to, at a minimum, slow the standard-setting process and make it harder to establish new standards. At worst, the revised Process Rule will entirely freeze up the national standards program. (Attachment B provides more details on the proposed Process Rule.)

***D. DOE has abused its enforcement discretion to attempt to undo existing standards.***

Twice in recent months DOE has issued enforcement policies that undo duly-promulgated standards. These policies are illegal, harm consumers and undermine companies that have invested with the expectation that US law will be enforced.

On November 2<sup>nd</sup>, the Department granted a request immediately upon receipt from the Air-Conditioning, Heating and Refrigeration Institute (AHRI) that it not enforce standards for furnace fans that take effect on July 3<sup>rd</sup> of this year. The furnace fan standards, promulgated in 2014 after a multi-year public rulemaking process, will save the typical household about \$70 per year, or about \$670 over the life of a furnace fan.<sup>16</sup> Many manufacturers and component makers have already invested millions of dollars to upgrade product lines to comply. Several major manufacturers (including AHRI members) strongly opposed DOE’s action. Last month, AHRI rescinded its request and, in response, again acting extraordinarily promptly, DOE reversed the policy.<sup>17</sup>

On February 8<sup>th</sup>, DOE announced another enforcement policy that seeks to undermine an existing standard for consumer water heaters, originally promulgated in 2010 and in effect in its current form since late 2016. DOE proposes to temporarily enforce an alternative, significantly weaker standard in place of the minimum requirement established through the law’s rulemaking processes. While we are still evaluating this policy, it also raises concerns about DOE’s use of its enforcement discretion.

DOE’s willingness to use its enforcement discretion in these two cases serves as an open invitation for further enforcement discretion requests from any company that has failed to prepare well for an upcoming standard. Until now, regulatory predictability has been a hallmark of the national appliance standards. Everyone from consumers who expect products to meet minimum standards, to utilities that count on standards in their forecasting, to manufacturers who

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<sup>16</sup> See ASAP et al comments at [https://appliance-standards.org/sites/default/files/Comments\\_AFUE2\\_petition\\_2019\\_0.pdf](https://appliance-standards.org/sites/default/files/Comments_AFUE2_petition_2019_0.pdf)

<sup>17</sup> See <https://www.energy.gov/gc/downloads/furnace-fan-enforcement-policy>

design products and invest in plants and equipment could bank on US standards. DOE's recent abuse of its enforcement discretion has created a new and completely unnecessary uncertainty about whether standards on the books will actually apply.

***E. DOE is now contemplating a policy that would effectively foreclose future standards that save natural gas.***

Last fall, the gas industry petitioned DOE to rescind two 2016 proposed rules (affecting residential furnaces and commercial water heaters) that would save consumers and businesses \$8 to \$28 billion *and* issue a policy that would make it impossible for DOE to significantly improve the efficiency standards for most natural gas appliances and equipment. The gas industry has requested that products that use condensing technology, which can save 10 – 20% for gas space and water heating appliances, be regulated separately from inefficient products that do not use this technology. For most natural gas-using products covered by national appliance standards, there are few other meaningful improvements for efficiency aside from condensing technology. ASAP and ACEEE have estimated that future standards based on condensing technology efficiency levels could save consumers and business over \$100 billion on their utility bills by 2050.<sup>18</sup>

DOE first addressed the question of how to consider condensing technology during the George W. Bush administration and determined that it should be evaluated with a careful consideration of all related costs and benefits, like any other potential technological pathway for improving a product. DOE has repeatedly revisited this finding at the behest of the gas industry, each time reaffirming that condensing technology should be evaluated as a potential basis for improved standards. In some cases, DOE has found that standards at condensing technology performance levels are economically justified (e.g., water heaters over 55 gallons) and in others DOE has rejected condensing-level standards as not economically justified (e.g., residential boilers). If DOE grants the gas industry petition, it will eliminate two important pending standards, both of which are overdue, and effectively eliminate the potential for significant gas savings from future national efficiency standards.

***F. Other examples of DOE's mishandling of the program.***

DOE's mis-handling of the national appliance standards program is not limited to the five major points described above. Several additional problems merit attention. First, DOE issued five final standards in late 2016 that, due to a required additional review period to identify errors, had not been published in the Federal Register by the beginning of the Trump administration. Subsequently, the Trump administration published one of these five standards (concerning walk-in coolers). The other four cover commercial boilers, portable air conditioners, air compressors and uninterruptible power supplies. These four standards have been caught in limbo. Several states and advocacy groups sued, arguing that DOE has a non-discretionary obligation to publish the final rules since no substantive errors were identified. A district court judge ruled that DOE must publish the standards, but DOE appealed. The Appeals Court should rule soon. Together, these four standards would save \$11 billion according to the DOE analyses for the rulemakings.<sup>19</sup>

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<sup>18</sup> See ASAP et al comments at [https://appliance-standards.org/sites/default/files/Comments\\_gas\\_industry\\_petition\\_2019\\_0.pdf](https://appliance-standards.org/sites/default/files/Comments_gas_industry_petition_2019_0.pdf)

<sup>19</sup> SEE [LAWSUIT UPDATE: DOE INACTION COSTS CONSUMERS BILLIONS.](#)

Second, the home appliance manufacturers have requested that DOE withdraw the test procedure for cooking tops, which would make any standard for these products impossible unless and until a new test procedure might be developed. This standard is already overdue; starting over on the test procedure would knock DOE further out of compliance with statutory deadlines. Separately, an advocacy group (Competitive Enterprise Institute) has asked DOE to create a special standard for dishwashers that complete a cycle in less than an hour, even though such dishwashers are widely available today and meet current standards. Both requests would undermine existing standards and divert agency resources from working on its long list of overdue standards and should have been promptly denied. Both are still pending before DOE.

Third, DOE has failed to act on consensus recommendations for pool pump motors and circulator pumps. Consensus-building has been a hallmark of the DOE appliance standards program. I chaired the DOE's Appliance Standards and Rulemaking Federal Advisory Committee (ASRAC) until recently. Since 2012, that committee has established 11 representative working groups that succeeded in developing consensus recommendations for product standards and related policies.<sup>20</sup> Among the consensus-based standards, swimming pool pumps stand out for their very large per-unit savings: \$400 - \$550 per year per pool pump. DOE published this standard in late 2016 and the Trump administration provided a final approval in May 2017. However, DOE has not acted to establish a necessary complementary standard for replacement pool pump motors. A broad coalition of swimming pool pump manufacturers, motor manufacturers, consumer groups, energy efficiency advocates, utilities and state governments filed a petition with DOE in 2018. Although DOE published this petition, the agency has not yet indicated if it will act on the joint request. DOE has also failed to act on a consensus recommendation for circulator pumps negotiated in 2016. The standards for these small pumps that are used for circulating heated water in homes and businesses would save considerable energy and money and are strongly supported by a range of stakeholders. Nevertheless, DOE has ignored this recommendation.

## **V. DOE'S MIS-HANDLING OF THE NATIONAL PROGRAM WILL ALSO HURT MANUFACTURERS.**

Most manufacturers that produce products subject to national standards generally support a well-functioning national standards program, even if they do not agree with every decision DOE makes. They generally cite three reasons: preference for a single national standard rather than state-by-state regulation; regulatory predictability; and, through experience, they have learned that business can thrive even as standards increase according to a predictable and reliable schedule. For manufacturers, a predictable and regular cadence of regulatory reviews and, if warranted, updates for standards affecting their products allows for making product changes on a predictable investment cycle along with other product upgrades needed for keeping pace with technological innovation. When DOE falls behind, reviews get bunched together. For example, when DOE fell behind on 22 deadlines by 2005, the resulting litigation and consent decree compressed all the work to catch up on those deadlines into a 5-year period. Today's delays result in tomorrow's ramped up regulatory activity.

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<sup>20</sup> See <https://www.energy.gov/eere/buildings/appliance-standards-and-rulemaking-federal-advisory-committee>

Similarly, DOE actions that seek to undo duly-promulgated standards invite legal challenges that can significantly shorten lead times for standards investments. When the US Court of Appeals found an attempted rollback of central air conditioner standards illegal in 2004, manufacturers were left with two years to prepare, rather than the five years anticipated by statute. If a court rules that light bulb standard rollbacks are illegal in the months ahead, manufacturers and retailers may have far less time to prepare for compliance. Likewise, failure to enforce existing standards can harm manufacturers that have invested to bring product lines up to date with standards. In sum, manufacturers may pay a high price for uncertainty created by DOE's actions to undermine standards.

Furthermore, when DOE fails to do its job, state policy makers increasingly look to fill the breach. While state preemption inhibits state-level regulation for many products, many states will act where they can when faced with a failing federal program. At least half a dozen state legislatures are considering state standards in 2019. As described above, a fundamental feature of the national standards law is a trade of state preemption for a federal commitment to update standards. With the federal government failing to live up to its side of the bargain embedded in law, pressure will grow to ease or eliminate federal preemption. In sum, a well-functioning national standards program provides a predictable regulatory environment for manufacturers. Recent mishandling of the program creates regulatory uncertainty that increases costs for manufacturers.

## **CONCLUSION**

Appliance, equipment and lighting efficiency standards are a foundational US energy policy that has delivered enormous benefits for consumers, US energy systems and the environment over several decades. The typical US household spends \$500 less on utility bills because of existing standards. Much more can be saved by updating standards to keep pace with technological change. Federal law requires DOE to review and update standards periodically, but the current administration has fallen badly behind. In addition to missing many statutory deadline (16 so far and another 12 likely to be missed), the agency has also proposed to eliminate light bulb standards that will save more than any other single standard, proposed program changes that will make it much harder to update any standards and abused its enforcement discretion to undermine existing law. Furthermore, DOE is now considering a gas industry petition that, if granted, would put standards that could potentially save significant amounts of natural gas out of reach. DOE's actions are like a wrecking ball aimed at this foundational energy saving policy.

## MISSED DEADLINES FOR APPLIANCE STANDARDS

*Prepared by the Appliance Standards Awareness Project (updated January 2019)*

By law, the U.S. Department of Energy (DOE) must review each national appliance standard every six years and publish either a proposed rule to update the standard or a determination that no change is warranted (i.e., a “negative determination”). If DOE publishes a proposed update, a final rule is due two years later. In addition, Congress set unique review schedules for a few products.

As of January 2019, DOE has missed legal deadlines for sixteen product standards.<sup>1</sup> Based on the current rate of progress, DOE likely will miss another dozen deadlines by January 2021, including those for electric motors, distribution transformers, commercial refrigerators and furnace fans.

**Missed standards deadlines as of January 2019**

Product	Required rulemaking step	Legal deadline
Small electric motors	Proposed rule or neg. determination	March 2016
Pool heaters	Proposed rule or neg. determination	April 2016
Water heaters	Proposed rule or neg. determination	April 2016
Clothes dryers	Proposed rule or neg. determination	April 2017
Room air conditioners	Proposed rule or neg. determination	April 2017
Cooking products	Final rule	June 2017
Refrigerators and freezers	Proposed rule or neg. determination	Sept. 2017
Fluorescent lamp ballasts	Proposed rule or neg. determination	Nov. 2017
Dedicated outdoor air systems	Proposed rule or neg. determination	April 2018
Computer room A/Cs	Proposed rule or neg. determination	April 2018
VRF A/Cs and heat pumps	Proposed rule or neg. determination	April 2018
Commercial water heaters	Final rule	May 2018
Residential clothes washers	Proposed rule or neg. determination	May 2018
Evaporatively-cooled com. ACs	Proposed rule or neg. determination	May 2018
Water-cooled com. ACs	Proposed rule or neg. determination	May 2018
Metal halide lamp fixtures	Final rule	Jan 2019

### Savings at stake

Missed deadlines for updating appliance standards result in lost savings for consumers and businesses. A 2016 ASAP/ACEEE report, [Next Generation Standards](#), found that updates to existing appliance standards could save consumers and businesses about \$43 billion each year on their utility bills by 2035.

### Test procedures also overdue

DOE has also missed more than a dozen legal deadlines for updating test procedures. Updated test procedures should be completed in advance of the product standards review process.

Sources: DOE [Report to Congress](#), Dec. 2018; DOE’s [Draft 5-year schedule](#); national appliance standards [laws](#). For more information contact: Andrew deLaski, [adelaski@standardsASAP.org](mailto:adelaski@standardsASAP.org), 617-390-5334.

<sup>1</sup> In addition, a court settlement required DOE’s “best efforts” to complete a final standard for furnaces by April 2016.



# Light Bulb Definition Rollback

This NOPR would rescind definitions issued by DOE in 2017 that determine what light bulbs need to meet the efficiency standard for bulbs that will take effect in 2020. It would allow reflector, globe, candelabra and other commonly used bulbs to waste more energy.

A 2007 law set standards for typical pear-shaped screw-in light bulbs that took effect starting in 2012, and set a 2017 deadline for DOE to update the standard. Because DOE has not done so, the statutory backstop standard of 45 lumens per Watt, which can be met by LED and fluorescent bulbs, will apply in January 2020 to covered bulbs (although the NOPR argues the backstop has not yet been triggered).

The 2007 law also required DOE to determine whether additional bulb shapes and types should be covered by the updated standards, and gave DOE broad authority to include other bulbs. The 2017 definitions mean most bulbs commonly used in U.S. homes would need to meet the 2020 standard. The new proposal would reverse this decision.

## The proposed rollback would cost consumers billions of dollars

- ▶ Because many fewer bulb types would need to meet standards, consumers would pay at least \$12 billion a year in higher electricity bills by 2025—about \$100 per household each year in lost savings.
- ▶ Almost half the light bulbs in the U.S. are of the affected types—2.7 billion bulbs. There are LED bulbs of each type, with energy savings that typically pay for the added purchase cost in less than a year.
- ▶ Almost 90% of the savings from the 2020 standard would be lost under the rollback since the current bulbs that were added in 2017 are so wasteful. (The rest of the savings may also be lost if DOE fails to enforce the standard for the typical pear-shaped bulbs as well.)

## The proposed rollback would likely be illegal, while DOE fails to do legally required work

- ▶ Under the appliance standards law DOE may not change a standard for any product to allow it to use more energy. If DOE finalizes the rollback, efficiency supporters will sue.
- ▶ DOE is not required to modify the 2017 definitions. While developing this harmful and likely illegal rollback, DOE has missed legal deadlines for more than a dozen other standards and as many test procedures.

## This rule would add uncertainty for manufacturers and other businesses

- ▶ Manufacturers, retailers, utility efficiency programs, and others are making plans for 2020 and placing orders, but they don't know what the standard will be. Because a rollback would spark litigation, it would extend the uncertainty, likely for years. Those who have invested to meet the 2020 standard would be harmed.

## **Appliance Standards Process Rule**

This NOPR would modify the 1996 “Process Rule,” and subsequent agency directives that guide how DOE sets appliance efficiency standards (and arguably modify the legal requirements as well).

A lot is at stake. Existing appliance standards will save consumers over \$2 trillion. Future standards (that are technically achievable today) could save consumers another \$1 trillion.

### **DOE should meet its legal requirements, not overhaul a process that was working**

- ▶ DOE has successfully used the current process: during the Obama administration alone it set 50 standards that will save consumers \$550 billion and reduce global warming CO2 emissions by 3 billion metric tons.
- ▶ DOE has now missed legal deadlines for considering updates to 16 standards (13 of them in the last two years). They also have missed legal deadlines for more than a dozen test procedures.
- ▶ Some reforms to the process could be beneficial, but focus should be on improving standards.

### **Proposed changes will make it hard to update standards**

- ▶ Proposed threshold for “significant” savings could have blocked about a third of the standards set in 2009-2016 (updates would have to save at least 0.5 quadrillion Btu, the total energy use of 3 million homes for a year, or 10% of total energy use).
- ▶ The rule would add a new and poorly defined “economically rational consumer” test.
- ▶ The rule would bar using different metrics or compliance dates in direct final rules based on consensus agreements. Removing this flexibility makes it harder to find agreement: it would likely have blocked the largest standard DOE has set, on commercial roof top air conditioners, as well as other consensus-based standards.
- ▶ Making the process mandatory in all cases removes the ability to address problems and invites more lawsuits.
- ▶ More complicated process would take even longer and could make it impossible for DOE to meet legal deadlines:
  - ▷ Setting standards would require an early assessment notice and RFI followed by a determination, then a framework document followed by a preliminary analysis (or an ANOPR), then an economic analysis reflected in a NOPR and draft technical support document, then a supplemental NOPR or RFI if needed, then a final rule.
  - ▷ Test procedures would similarly require a notice and RFI and determination, followed by an RFI, followed by a full rulemaking—all at least 180 days before the NOPR for the standard.
  - ▷ And for a new standard a separate rulemaking on covering the product would have to be completed before any of the above steps could start.

### **Proposed changes give too much control to manufacturers**

- ▶ Generally requires use of industry test procedures without modification, thus blocking improvements (and potentially delaying updates of standards).
- ▶ Bars DOE from going beyond levels for commercial heating and cooling equipment set mostly by manufacturers and architects (under the professional association ASHRAE) except in “extraordinary circumstances” (the consensus roof top air conditioner standards mentioned above went considerably beyond ASHRAE levels).
- ▶ New early assessment relies on submitted data only manufacturers are likely to have, not DOE’s own analysis.



## APPENDIX C

### EFFECTS ON CONSUMER CHOICES, PRODUCT PERFORMANCE AND PRICES

Manufacturers not only meet efficiency standards, they exceed them. And they do so while providing consumers with expanded choices, improved product performance, and, perhaps most surprisingly, often without raising prices. The finding is counter-intuitive: standards that remove the most inefficient choices from the market enhance available consumer choices. These results are supported by both casual observation as well as rigorous quantitative research.

A visit to the lighting aisle and appliance department at any Home Depot, Lowe's or other lighting or appliance retailer will readily reveal the dizzying array of innovative choices available for consumers. For example, partly due to lighting standards (both those in effect today and those required to take effect in 2020) and partly due to public- and private-sector investments in research and development, lighting products offer some of the best case studies on energy efficiency. The U.S. led the light-emitting diode (LED) lighting revolution, and American consumers now have countless choices of bulbs, fixtures, controls, and "smart" features, all while LED prices have decreased by 94% since 2008.<sup>21</sup> Likewise, DOE's clothes washer standards, negotiated over several rounds between industry and efficiency supporters, have spurred manufacturers to develop a wide array of very efficient products (including both top- and front-loading) that not only save energy, but according to Consumer Reports, clean clothes better.<sup>22</sup> From light bulbs, to clothes washers, to refrigerators, to commercial roof top air conditioners, buyers of products regulated by DOE have more and better choices than ever before.

Research published by Resources for the Future (RFF) found that product performance often improved as new standards took effect. In addition, their research showed that, "product reliability has improved considerably since our case appliances were first covered under federal (standards)..."<sup>23</sup> Similarly, a 2012 study by ASAP and ACEEE examined ten regulated products before and after standards took effect and found that product performance generally stayed the same or improved and new features became available.<sup>24</sup>

Even as product choices and efficiency have improved, prices have declined. Researchers at the London School of Economics (LSE) reviewed the existing literature finding that, contrary to DOE's predictions, "a number of studies provide empirical evidence showing the correlation between imposing energy efficiency standards and, surprisingly, *declining prices* of durable goods."<sup>25</sup> Their own analysis of price data confirmed that prices declined after standards took effect.<sup>26</sup> The LSE researchers concluded:

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<sup>21</sup> U.S. DOE. *The Future Arrive for Five Clean Energy Technologies – 2016 Update*. p. 8

<sup>22</sup> CONSUMER REPORTS. *THE BEST WASHERS FOR \$800 OR LESS: THESE WORKHORSES OF THE LAUNDRY ROOM HANDLE LOADS FOR LESS*. LAST UPDATED: JULY 12, 2017 12:30 PM

<sup>23</sup> M. Taylor, C.A. Spurlock, H.C. Yang. *Confronting Regulatory Cost and Quality Expectations: An Exploration of Technical Change in Minimum Efficiency Performance Standards*. Resources for the Future. October 20115. p. 70.

<sup>24</sup> Mauer et al. *Better Appliances: An Analysis of Performance, Features and Price as Efficiency Has Improved*. ASAP and ACEEE, May 2013.

<sup>25</sup> Brucal and Roberts. p. 3

<sup>26</sup> Brucal and Robert. p. 24

We find no evidence to suggest that more stringent energy efficiency standards hurt consumers by increasing price or lowering quality. Rather, we find evidence that price declines and quality improvements accelerate with stricter standards, which unambiguously improves consumer welfare, excluding external pollution-related benefits.<sup>27</sup>

How can improvements in efficiency and quality occur at the same time as price declines? The LSE researchers investigated this question and concluded: “we find evidence supporting policy-induced innovation, wherein firms lower prices of older models as they are forced to introduce new models meeting new, stricter efficiency standards.”<sup>28</sup> In other words, as standards take effect, the price of older, but still compliant products comes down and manufacturers introduce new, high-end models with new features to capture profits from consumers willing to pay premium prices for the latest thing. In addition, manufacturer innovation, sparked by the need to redesign for a new standard, finds new ways of producing the regulated product that not only improves efficiency, but also other aspects of the product and the process for making it.

Of course, for any product category, there will almost always be some poor-performing products on the market, whether the product is subject to efficiency standards or not. Anecdotes about a particular clothes washer or dishwasher that performs poorly should not be read as an indictment of all appliances in that category. Poorly-performing products, subject to standards or not, will be weeded out by the competitive market. Existing law provides protections against standards that would harm product performance: DOE is not permitted to set a standard at a stringency level which would impair the utility (effectiveness) of the product. The result: even as products have become more efficient due to standards consumers have gained a wider range of choices to meet their needs.

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<sup>27</sup> Brucal, A. and M. Roberts. *Do energy efficiency standards hurt consumers? Evidence from household appliance sales*. Grantham Research Institute/London School of Economics. March 2017. p. 2.

<sup>28</sup> Brucal and Roberts. p. 28.