

**COMMENTS OF THE CONSUMER FEDERATION OF AMERICA  
and  
THE NATIONAL CONSUMER LAW CENTER**

**DEPARTMENT OF ENERGY DOCKET EERE-2018-BT-STD-0010  
RIN: 1904-AE26**

**RE: Energy Conservation Program: Energy Conservation Standards for  
General Service Lamps; Notice of Proposed Rulemaking**

**Comments Submitted May 3, 2019**

**I. INTRODUCTION**

The Consumer Federation of America (“CFA”) and the National Consumer Law Center (“NCLC”) (collectively, “Consumer Groups”) file these comments in response to the Department of Energy’s February 11, 2019 Notice of Proposed Rulemaking<sup>1</sup> (NOPR) to withdraw two final rules issued by the Department on January 19, 2017.<sup>2</sup> These rules expand the definition of general service lamps (GSLs) to include other kinds of light bulbs commonly used by consumers in their homes, such as three-way light bulbs, globe shaped light bulbs and decorative lights such as candelabras, effective January 1, 2020 when GSLs must meet the 45 lumens per watt (LPW) requirement. We support the expanded definition of GSLs issued on January 19, 2017 as it will benefit consumers through lower energy bills. We strongly urge the Department to withdraw its proposed rulemaking and to retain the current GSL definition which would result in significant savings of \$14 billion cumulatively or approximately \$115 annually for the typical U.S. household by 2025.<sup>3</sup>

**II. BACKGROUND OF THE CONSUMER GROUPS**

CFA is an association of more than 250 nonprofit consumer organizations that was established in 1968 to advance the consumer interest through research, advocacy, and education. For more than 20 years, CFA has been a vigorous and continuous participant in the process of setting standards to improve the efficiency of energy-using consumer durables and lower the cost

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<sup>1</sup> <https://www.federalregister.gov/documents/2019/02/11/2019-01853/energy-conservation-program-energy-conservation-standards-for-general-service-lamps>

<sup>2</sup> <https://www.federalregister.gov/documents/2017/01/19/2016-32012/energy-conservation-program-energy-conservation-standards-for-general-service-lamps>

<sup>3</sup> [https://appliance-standards.org/sites/default/files/light\\_bulb\\_brief\\_appendices.pdf](https://appliance-standards.org/sites/default/files/light_bulb_brief_appendices.pdf).

of energy borne by consumers. Over the past few years, CFA has conducted and reported on surveys measuring consumer knowledge, behavior and acceptance of energy efficiency lighting as well as in-store research on price differences between incandescent, halogen incandescent light bulbs and the more efficient light emitting diodes (LEDs) and retailer displays of LEDs.<sup>4</sup>

NCLC is a 501(c)(3) non-profit organization founded 50 years ago, with the mission of advocating for justice and economic security for low-income consumers. Throughout its history, NCLC has worked to ensure that these households can afford the home energy they need for heating, cooling, lighting, refrigeration and other essential needs. Support for energy efficiency programs and policies has been a key part of NCLC's strategy, since cost-effective efficiency reduces both energy consumption and households bills. NCLC has been actively involved in DOE rulemaking dockets on appliance standards for the past 15 years. NCLC is filing these comments on behalf of its low income clients.

### **III. CONSUMER GROUPS COMMENTS**

We believe that the Department should withdraw its NOPR and retain the current GSL definition for the following reasons:

#### **1. DOE's NOPR will rob consumers of substantial energy savings; the current expanded definition of GSLs will lower consumers' electricity bills.**

According to the Energy Information Administration, lighting represented approximately 10% of the electricity consumed in homes in 2015.<sup>5</sup> The standards that went into effect beginning in 2012 have spurred great progress in lighting efficiency for A-type (common household) light bulbs and in acceptance of efficient light emitting diodes (LEDs) by consumers. They have provided significant energy savings. By 2025, it is estimated that consumers will have saved close to \$8 billion dollars due to the current standards.<sup>6</sup> The requirement of 45 lumens per watt (LPW) for GSLs due to take effect January 1, 2020 provides even greater benefits, on the order of \$14 billion per year cumulatively with the typical American household saving \$115 annually by 2025.

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<sup>4</sup> [https://consumerfed.org/press\\_release/incandescent-halogen-light-bulbs-cost-four-five-times-much-time-new-led-light-bulbs](https://consumerfed.org/press_release/incandescent-halogen-light-bulbs-cost-four-five-times-much-time-new-led-light-bulbs)

[https://consumerfed.org/press\\_release/national-retailers-receive-mixed-grades-led-light-bulb-display-signage/](https://consumerfed.org/press_release/national-retailers-receive-mixed-grades-led-light-bulb-display-signage/)

<sup>5</sup> <https://www.eia.gov/todayinenergy/detail.php?id=38452>

<sup>6</sup> [https://appliance-standards.org/sites/default/files/light\\_bulb\\_brief\\_appendices.pdf](https://appliance-standards.org/sites/default/files/light_bulb_brief_appendices.pdf), p. 6.

And, in addition to the direct savings of \$14 billion, there are also broader economic benefits from the expanded definition of GSLs when the commercial and industrial sectors save on lighting costs. These energy savings can be passed on to consumers in the form of lower costs for goods and services and can be spent in other areas in our economy with greater multiplier effects.

The expanded definition of bulbs which will be covered by the 45 LPW standard are particularly important to low-income households. Low-income households are disproportionately renters. Many of them move into apartments where the bulbs were installed by the owner, or, in some cases, by the prior tenant. Ensuring that any already-installed bulbs meet the 45 LPW standard will reduce the electricity bill that the new tenant will have to pay.

We believe the experience with the currently covered A-type LED light bulbs for which there have been significant purchase price reductions bodes well for the acceptance of the products that will be covered on January 1, 2020 and that the price will come down as it did in the case of the A-type LEDs. Currently, there is a non-trivial purchase price differential between the less efficient incandescent bulbs and the more efficient LED versions that will be subject to the GSL standard on January 1, 2020.

To illustrate this point, CFA recently undertook a price comparison at Lowes stores between 1) a 60 watt equivalent incandescent halogen A-type bulb and an LED equivalent which is subject to efficiency standards and between 2) a 3-way 30-70-100 watt incandescent light bulb and an LED equivalent which is not yet covered by the standard but will be on January 1, 2020. See table below.

We found the purchase price of each A-type 60w equivalent to be affordable (\$1.75 vs. \$2.50), and the price differential to be quite small (less than \$1). While the initial, first-cost of the LED is slightly more, its energy cost is 80% less than the halogen incandescent, and the difference in price is recouped in less than a year. Over a ten year period, the consumer saves over 80% in total savings even with the slightly higher cost LED, as the useful life of the LED is ten times as long as the halogen incandescent.

In the case of comparing 3-way (30-70-100w) light bulbs, we found the purchase price of an LED equivalent (\$7.98) to be \$4 more than the cost of the incandescent (\$3.98). Our calculation using the mid-value (70w) found the energy cost of the LED to be approximately

85% less than the incandescent counterpart over a 10 year period. But, in this case, the purchase price of the LED is twice the cost of the incandescent. That price differential may be large enough to be a disincentive to buying the more efficient LED, even though it would save consumers close to \$100 over 10 years on their energy bills. . Moreover, that initial purchase differential of \$4 would be paid back within a year, due to the much lower energy operating cost of the LED bulb.

The current definition for GSLs that will go into effect January 1, 2020 will help spur increased production of more energy efficient LED lighting products, bring the price down, (as has been the case with the A-type bulb), and save consumers more on their energy bills.

Light Bulb Price and Energy Usage Comparison (Incandescent & Halogen Incandescent vs. LEDs)									
Type of Bulbs <sup>1</sup>		Watts	Life (years)	Purchase		Energy <sup>2</sup>		10 Year Total Cost	Difference in Cost
Type	Technology			Price	10 Year Cost	Cost per Year	10 Year Cost		
<b>Currently Covered</b>									
A-type (60W Equivalent)	Halogen Incandescent	43	1.1	\$1.50	\$13.64	\$5.18	\$51.80	\$65.44	<b>\$53.91</b>
A-type (60W Equivalent)	LED	8.5	13	\$2.50	\$1.92	\$0.96	\$9.60	\$11.52	
<b>To be Covered January 1, 2020</b>									
Three-Way 30-70-100w	Incandescent	30-70-100	1.1	\$3.98	\$36.18	\$8.43	\$84.30	\$120.48	<b>\$95.98<sup>3</sup></b>
Three-Way 30-70-100w Equivalent	LED	4.7-9.3-15.5	6	\$7.98	\$13.30	\$1.12	\$11.20	\$24.50	

<sup>1</sup>All are GE brand light bulbs priced consistently at Lowes stores in Alexandria VA, Detroit and Houston.

<sup>2</sup>Based on 3 hours per day at 11 cents per kWh as indicated on the light bulb packaging.

<sup>3</sup>Savings calculated mid-value (70w).

## 2. The public supports energy efficiency standards for light bulbs including the GSLs that are going to be covered on January 1, 2020.

The results from our recent survey<sup>7</sup> found that close to three-quarters (71%) of the respondents approve of federal efficiency standards for lighting products; 17% said they did not. (12% did not know). 64% agreed that light bulbs such as three-way light bulbs, reflector bulbs used in recessed cans and track lighting, round globe light bulbs, and other decorative lights should be subject to federal standards. And, there was strong support for the energy efficient light emitting diodes (LEDs) with almost 70% of respondents using LEDs and of those, 90% said they are satisfied with them.

<sup>7</sup> The survey was conducted for CFA by Engine International by cell phone and landline on March 21-24, 2019, using a representative sample of 1007 adult Americans. The survey's margin of error is plus or minus 3.09 percentage points at the 95% confidence level.

### **The experience with LEDs is a crucial factor.**

Those who had no experience were twice as likely to have no opinion about current or future standards. Among those who have experience and expressed an opinion about standards, support was much stronger, over 80% for current standards and 70% for future standards. Regardless of political affiliation, those with experience who expressed an opinion were supportive of current standards, (almost three quarters of Republicans (73%) and over nine-tenths of Democrats (93%), and two thirds (67%) of Republicans and 83% of Democrats supporting the extension of the standards.

See Appendix A below for a more detailed analysis of CFA’s recent public opinion poll on lighting standards.

### **3. The Department’s NOPR violates the law.**

DOE’s February 11, 2019 NOPR runs contrary to the “anti-backsliding” provision of the Energy Conservation Policy Act (ECPA), which provides: “The Secretary may not prescribe any amended standard which increases the maximum allowable energy use . . . or decreases the required energy efficiency, of a covered product.”<sup>8</sup> This NOPR proposes to do just that—decrease the efficiency of the GSLs that were in the final rules issued on January 19, 2017 and deny consumers energy savings.

## **IV. CONCLUSION**

The Administration’s overall attack on light bulb efficiency standards is ill-conceived and illegal, and will cause consumers to unnecessarily spend billions of dollars on energy consumed by light bulbs. Consumers have benefited enormously from appliance efficiency standards. CFA’s public opinion polls show they support appliance standards.<sup>9</sup> Specifically in this case, they support efficiency standards for lighting products that are included in DOE’s January 19, 2017 final rules. CFA estimates that past standards overall have saved consumers \$750 billion dollars. Current standards will save them an equal amount.<sup>10</sup> It is critical that the Administration supports cost-effective energy efficiency measures that benefit consumers. Energy dollars saved

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<sup>8</sup> 42 USC 6295(o)(1).

<sup>9</sup> [https://consumerfed.org/press\\_release/consumers-support-appliance-efficiency-but-trump-administration-delays-and-seeks-to-weaken-standards/](https://consumerfed.org/press_release/consumers-support-appliance-efficiency-but-trump-administration-delays-and-seeks-to-weaken-standards/)

<sup>10</sup> <https://consumerfed.org/wp-content/uploads/2017/07/cfa-regulatory-reduction-comment.pdf>

– whether in the residential, commercial or industrial sectors – can provide greater benefits elsewhere in our economy.

The General Service Lamp definition final rules issued on January 19, 2017 were correct; no further changes are needed. The Department should withdraw its Notice of Proposed Rulemaking concerning the definition of general service lamps. It's in the best interest of consumers and the economic interests of our country.

Respectfully submitted,



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## Appendix A

### Consumer Federation of America Detailed Analysis of Public Support for Standards By Dr. Mark Cooper, Senior Fellow

Our survey evidence<sup>11</sup> shows that the public supports the current standards and their extension to additional types of bulbs frequently found in the home.

Over seven out of ten respondents (71%) support the current standards, outnumbering opponents (29%) by almost 2.5-to-1. Strong supporters (39%) outnumber strong opponents (9%) by more than 4-to-1.

There is also support for extending the standards to other bulbs, such as three-way light bulbs, reflector bulbs and round globe lights. Almost two-thirds (64%) support extending the standards compared to one-quarter (26%) who oppose extension. Thus, supporters outnumber opponents by over 2-to-1. Strong supporters of extension (34%) outnumber strong opponents (12%) by almost 3-to-1.

There are few statistically significant differences across demographic characteristics in the support for standards. Younger and female respondents are generally more supportive. College graduates were more likely to be strong supporters. Those with high school or less education were more likely to respond: don't know/no opinion.

#### **Support for standards across the political spectrum**

A clear majority of respondents across the political spectrum supports current standards. We found that 60% of Republicans and Republican leaning independents support current standards, while 72% of full independents do, as do 81% of Democrats. Among Republicans, supporters outnumber opponents by 2-to-1. Among independents, supporters outnumber opponents by 4-to-1, while among Democrats, the ratio was just over 4-to-1. The ratio of very strong support to very strong opposition is roughly equal to the ratio of overall support/opposition.

For the extension of standards, Republican support drops to a plurality (48% support versus 43% oppose). Independents support extension by 3-to-1 (67% v. 23%) and Democrats support the extension by more than 5-to-1 (79% v. 15%). For extension of the standards, among Republicans, very strong support equals very strong opposition (1-to-1), while twice as many Independents support extension as oppose it (2-to-1), and among Democrats the ratio is 3-to-1.

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<sup>11</sup> The survey was conducted for CFA by Engine International by cell phone and landline on March 21-24, 2019, using a representative sample of 1007 adult Americans. The survey's margin of error is plus or minus 3.09 percentage points at the 95% confidence level.

## Experience with LED lighting and support for standards

This support for standards comes in a situation in which the majority of households use at least a few LEDs (68%). Those who do, are overwhelmingly satisfied with them (61% very satisfied and 31% somewhat satisfied).

The extent of usage among those with LEDs varies considerably with about one-quarter (26%) using few of these bulbs (less than 6), while over two-fifths (42%) use many (6 to 20) and one-third (32%) use them in all their lighting.

Interestingly, younger and female respondents are less likely to be using LEDs and more likely to respond don't know/no opinion.

Given this very different experience across the respondents, we thought it important to explore how experience affected the attitudes toward standards.

We created two scales of experience with LEDs with the following breakdowns, ranked in the order in which we expected to see increasing support.

<u>Use</u>			<u>Satisfaction</u>		
None/Don't Know	285	28%	Dissatisfied	48	5%
Few	173	17%	None/Don't Know	285	28%
Many	285	28%	Somewhat Satisfied	212	21%
All	211	21%	Very Satisfied	418	42%

We found that the more experience/satisfied respondents are with LEDs, the more they support standards. Those who do not use LEDs were over twice as likely to have no opinion about standards and those who use LEDs express more support for standards.

Looking at the set of respondents who expressed an opinion about standards, we found that 83% of LED users supported current standards, compared to 72% who did not use LEDs. The difference was almost entirely among strong supporters (47% to 37%). The pattern was similar for the expansion of standards. Support was stronger among users (70% v. 64%) with the entire difference accounted for by strong support (36% v. 30%). This was also true for Republicans, with 73% of users supporting current standards and 62% of non-users supporting them. The difference was half for strong support and half for somewhat support.

With respect to the amount of usage, we find a similar pattern. The more LED bulbs the respondents used, the less likely they were to have no opinion and the more supportive they were of standards. The pattern holds for Republicans.

For current standards, only one-quarter (25%) of Republican respondents who do not use LEDs support standards. In contrast, almost three-quarters (72%) of Republican respondents who use many or all LEDs support current standards, with 40% expressing strong support.



For future standards, only one-quarter (24%) of Republicans who use no LEDs support standards. Among those who use many LEDs, over half (51%) support current standards. Among Republicans who use all LEDs, even more (59%) support standards, with one-third (33%) expressing strong support.

For future standards, among Republicans, only one-quarter (24%) of those who use no LEDs support current standards. Among those who use many LEDs, over half (51%) support current standards. Among Republicans who use all LEDs, even more (59%) support standards, with one-third (33%) expressing strong support.

Among Democrats support is much higher. Even among those who use no LEDs, 86% support current standards and 80% support expansion of standards. Among Democrats who use less than 6 LEDs and express an opinion, 90% support current standards and 84% support the expansion of standards. Among Democrats who use more than 6 LEDs, support for current and future standards exceeds 90%.

### Wording of Survey Questions

L1 For the past six years, common household light bulbs have become much more energy efficient in large part because of federal standards. To what extent do you approve or disapprove of federal energy efficiency standards for these common light bulbs? Would you say you...

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

- 01 Approve strongly
- 02 Approve somewhat
- 03 Disapprove somewhat
- 04 Or, disapprove strongly
- 98 DON'T KNOW/NO OPINION
- 99 REFUSED

L2 While some common household light bulbs must meet energy efficiency standards set by the government, others may not be covered by federal government standards. These uncovered bulbs include three-way light bulbs, reflector bulbs used in recessed cans and track lighting, round globe light bulbs, and other decorative lights such as candelabras that are used in chandeliers and sconces.

To what extent do you agree or disagree that these uncovered bulbs should also meet energy efficiency standards set by the government? Would you say you...

(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)

- 01 Agree strongly
- 02 Agree somewhat
- 03 Disagree somewhat
- 04 Or, disagree strongly
- 98 DON'T KNOW/NO OPINION
- 99 REFUSED

- L3 Are you currently using light emitting diodes, known as LED light bulbs, in your home?  
01 YES  
02 NO  
99 DON'T KNOW/REFUSED
- L4 How satisfied are you with the LED light bulbs in your home? Are you...  
(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)  
01 Very satisfied  
02 Somewhat satisfied  
03 Somewhat dissatisfied  
04 Or, very dissatisfied  
98 DON'T KNOW/NO OPINION  
99 REFUSED
- L5 How many LED light bulbs are you using throughout your home? Would you say...  
(READ ENTIRE LIST BEFORE RECORDING ONE ANSWER)  
01 1 to 5  
02 6 to 10  
03 11 to 20  
04 Or, you use them in almost all of your lighting sockets  
99 DON'T KNOW/REFUSED