

**DOCKETED**

<b>Docket Number:</b>	19-AAER-04
<b>Project Title:</b>	General Service Lamps
<b>TN #:</b>	229976
<b>Document Title:</b>	Appliance Efficiency Rulemaking for General Service Lamps (Expanded Scope)
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Joseph Howley
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	10/7/2019 12:10:29 PM
<b>Docketed Date:</b>	10/7/2019

*Comment Received From: Joseph Howley*  
*Submitted On: 10/7/2019*  
*Docket Number: 19-AAER-04*

**Appliance Efficiency Rulemaking for General Service Lamps (Expanded Scope)**

*Additional submitted attachment is included below.*



## GE Lighting

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October 7, 2019

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Docket Unit, MS-4

Re: Docket No. 19-AAER-04

Email: [docket@energy.ca.gov](mailto:docket@energy.ca.gov)

Online: <https://www.energy.ca.gov/appliances/2019-AAER-04/> Docket Number 19-AAER-04

Subject Line: **19-AAER-04 - “Appliance Efficiency Rulemaking for General Service Lamps (Expanded Scope)”**

California Energy Commission,

GE Lighting appreciates the opportunity to comment on the CEC Rulemaking proposal to expand the scope for General Service Lamps. GE also supports the comments submitted by the National Electrical Manufacturers Association. GE does not believe this proposal is valid based on recent federal government activity. Fortunately, such expansive regulations are not necessary to achieve CA energy efficiency goals, the lighting market is already rapidly transitioning to LED technology. Most of the energy savings estimated in this proposal have already been achieved by market forces and the rest will soon follow without any additional regulations. The energy savings estimate uses data from 2015 and applies a very slow transition to LED lamps. The market is far ahead of the estimated projections in adopting LED lamps. The potential future energy savings from this rule is far less than projected.

The Proposed Rule on General Service Lamps is based on three elements. The first is that the Federal Government Expands the definition of a General Service Lamp. The second is based on the Federal Government implementing a 45 Lumen per watt efficiency requirement on all General Service Lamps on January 1<sup>st</sup>, 2020. The third is based on California’s use of an exemption from state preemption.

The first element has been removed by the Federal Government. In a recent federal register notice, a final rule by the Department of Energy defines a general service lamp as the lamp originally defined by Congress in the 2007 EISA law.

The second element does not currently exist. The Federal Government has made clear in two recent federal register notices that the “Backstop” language in the 2007 EISA law is not in effect. The Department of Energy continues to meet the requirements of the 2007 law, as detailed under “Federal Approaches” in the CEC staff report. The recent DOE NOPR “makes a determination” not to amend standards for General Service Incandescent lamps.

The conditions necessary to implement the third element, an exemption to State Pre-emption have not been met. In their final rule, DOE clarifies that none of the narrow state exemptions from preemption are available to CA. The federal government further clarifies that all states, including California, are prohibited from adopting energy conservation standards for General Service Lamps.

Much has changed since this regulation was proposed. This requires the Commission to significantly reassess this proposal.

The CEC Title 20 proposal makes the point a few times that Manufacturers (and Retailers) are obligated to comply with Federal appliance standards. This is a true statement. Even if industry wanted to ignore federal energy efficiency rules, industry cannot. Industry must abide by federal rulings, including federal rulings that determine that all state laws on general service lamps are preempted. The California proposed regulation notes this reality by stating that the proposed regulations would not, (and could not), change the efficiency levels, types of products, or effective dates applicable under federal law that are effective for general service lamps.

## **Additional Comments**

### **Testing**

GE Lighting agrees with adopting federal energy efficiency test procedures for regulated lighting products.

### **Expansion to Low Lumen Lamps**

GE Lighting does not agree with expanding the scope of the regulation to cover low lumen lamps, such as low wattage incandescent lamps. Very few of these lamps are sold due to their low lumen output, very little wattage is used, and like all residential lamp types, this category is moving to LED technology by market forces. Regulations are not necessary and very little energy savings will be achieved. Only 3% of the total projected energy savings are achieved in this category and this was only achieved in the analysis by greatly exaggerating the expected operating hours by 4 times what is normally

expected. The operating hours were increased from 2 hours to 8 hours a day, attempting to show at least a little energy savings. On expected total energy savings alone, which is only a quarter of what is projected if 2 operating hours a day is used, this proposal is not justifiable.

If low lumen lamps are regulated in California, despite the lack of energy savings, manufacturers and retailers selling these lamps would need a least a year to develop, manufacture and distribute new products in order to reset shelf space with alternative products as is typical with other regulations. As with all other energy efficiency regulations, such regulations must be based on a manufacturing date. From a practical standpoint, such a change cannot be accomplished in short period of time such as weeks.

### **ANSI COLOR SPECIFICATION FOR LOW LUMEN LAMPS**

There are 5 basic LED color option available in the United States today. Using the proposed narrow color specification only 2 would be able to be sold in California. This unfairly limits choice for California Consumers. The staff report makes this proposal without providing **any supporting rationale** for this narrow color proposal. The proposal uses an out-of-date color standard. The position to narrow color options is not defensible since the products have the same energy use, and only differ in color. It is equivalent to banning Red Cars because the commission only likes Blue cars even though they get the same fuel mileage. The proposal is not rationale.

The 5 types are:



The 80 CRI products cannot be sold, and the Reveal, modified Spectrum lamp, cannot be sold due to the lamp requiring a color point within Table B1 of the ANSI C78.377-2015 color standard. Modified spectrum lamps have shown that they are preferred in color preference studies by consumers because their color point is in the “white” area of the spectrum and outside of narrow color area described in Table B1 of the standard which is perceived as “yellowish”.

The commission is citing an out-of-date color standard. CEC needs to update their reference to the 2017 color standard, ANSI C78.377-2017, and allow the modified

spectrum tables to be used for compliance. CEC needs to add Table 2, “Extended Nominal CCT Specification”, for modified spectrum lamps in ANSI C78.377-2017 as an acceptable, and even preferred, color area.

Needed edits for this change are shown below:

## **(2) State-Regulated LED Lamps**

### **(A)** .....

1. A color point that meets the requirements in Table B1 of Annex B **or Table 2** of ANSI C78.377-2015 **ANSI C78.377 – 2017** for color targets and color consistency.

As commented previously, these standard update changes should also be made to existing state LED regulations. Existing regulations also point to an out-of-date 2015 ANSI color standard.

Our final comments on color involves the requirements to meet a minimum CRI of 82, while also meeting a minimum R8 value of 72. Given the current design of LED chips, such an approach is not practical. If lamps with a minimum CRI of 82 can be sold, as stated in the standard, the commission needs to lower the minimum value of the R8 Color point from 72 to 50. This is true of the existing regulation and this proposed change to the regulation.

iii) Individual color scores of R1, R2, R3, R4, R5, R6, R7 of 72 or greater, **and, a R8 of 50 or greater.**

## **NEW STATE REGULATED PRODUCT and timing**

Should the commission add additional state-regulated products to existing regulations that are not pre-empted by federal law, any new state-regulated products would also require at least 1 year to implement changes and must be based on a manufacturing date as with all other energy efficiency product regulations. This has been a standard practice for decades, and anything less is completely unacceptable to retailers and manufacturers. It is simply not possible or practical to implement regulations in a very short time period.

## **ENERGY SAVINGS ESTIMATES**

The projected future energy savings are greatly overstated. The good news is that they seem to be overstated because most of the energy savings proposed has already been achieved. Current industry sales of inefficient lamps support only a small percentage of the “projected” installed base of inefficient lamps being used in CA in 2020. If the CEC

installed lamp projection based on 2015 data is accurate, efforts by California utility efficiency programs, manufacturers and retailers have done a great job of converting the CA market to LED lamps over the past 5 years. The conversion to LED has been tremendous and significantly faster than projected by the CEC staff report. Most savings have already been achieved through market changes and further regulatory changes are not needed.

**Adverse Economic Impacts**

And finally, the commission states that the proposal is not likely to result in an adverse economic impact on any business when this is clearly not true. Banning the sale of millions of lamps on one date strands these products in the inventory of retailers and manufacturers causing severe negative economic impacts as this inventory must be written off as a loss. That is why it is always imperative to provide proper notice, at least one year in advance, and always imperative to base the standard on a manufacturing date.

Thank you for taking our comments into consideration,

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