

**DOCKETED**

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# THE IMPORTANCE OF UPDATING THE SCOPE OF CALIFORNIA'S LIGHT BULB REGULATIONS



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# NRDC's Top Level Input

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California has worked for the past 20 plus years to transform the light bulb market towards efficiency. Industry has really responded.

California took huge, but incomplete step on 1/1/2018 by implementing the minimum efficiency of 45 LPW for everyday pear shaped light bulbs (i.e. A-lamps with medium screw base).

To complete the job, we support CEC proposals to expeditiously:

- 1. Adopt the updated definitions set by DOE on 1/19/2017 and apply the 45 LPW efficiency requirement*
- 2. Extend the lumen range downwards to cover lamps between 150 - 310 lumens*



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# Current CEC Scope Leaves Out Around 45 % of the Sockets

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*National Data Per 2017  
[LBNL Impacts Report](#)*

<b>Lamp Type</b>	<b>Stock in 2015 (millions of units)</b>
<b>EISA-explicit</b>	3500
<b>MSB Reflector</b>	960
<b>MR</b>	170
<b>Decorative*</b>	1400
<b>Globe-shaped**</b>	330
<b>Misc. A-type***</b>	--

1. DOE updated definitions on 1/19/2017; brought almost all of these general service lamps (GSLs) into scope
2. CA needs to align with the current DOE scope (and extend lumen range downwards) in order to:
  - *Help protect against federal backsliding*
  - *Ensure state is prepared to implement and enforce its Title 20 standards*

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# Why Does Any of This Matter?

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- Ensure Massive Savings - Per CEC, additional 13,600 gigawatt-hours and \$2.4 billion of annual customer savings upon full stock turnover.
- Demand savings during early evening hours will take stress off the grid after the sun goes down and solar power is not being generated. Help with the “duck curve”

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## Issues to Address

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Close loopholes: If certain bulbs remain exempted, their future sales could skyrocket. Exemptions no longer warranted as efficient LED drop-in replacements already exist today

- *3-ways*
- *Globe lamps*
- *Flame shaped lamps*
- *Vibration resistant/service*
- *Shatterproof*

Setting limits of 60W or 40W, or one packs insufficient

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## Issues to Address (cont.)

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- Align with 1/19/2017 DOE definitions - update and modernize approach and scope. Expand coverage and application of standard to include most shapes, bases, etc.
- Bring in incandescent reflector lamps, a significant and growing percent of national household bulb sales (roughly a billion sockets nationally) and lighting energy use
- Extend lumen range to ensure incandescent and halogen 25W and 40W products are covered by the 45 LPW requirement

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# Real world examples

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Photos shown were taken in August 2018

Images intended to be illustrative and not meant to call out a single manufacturer, retailer, or particular model



# Reflector lamps – inefficient ones as low as \$1.85 each



# Reflector/Directional Lamps

Critically important portion of the market. Long burn hours. Need to bring >2.25 inch reflectors into CEC regulations and align with DOE.

*Broad availability of LED reflectors in CA:*

- *Multiple manufacturers*
- *Range of light outputs*
- *Color temp. choices*
- *Dimmable and non*
- *High CRI options*



# Many of the models also meet other Title 20 requirements



Note <\$3 per bulb for dimmable BR30 LED in multipack.

60 Watt incandescent globe sales could explode if exempted.  
Cost-effective LED replacement only uses 5.5 Watts



# CA low lumen lamp regulation needed to cover bulbs like this that are under the federal 310 lumen cutoff

Sylvania Home Lighting

SYLVANIA Home Lighting 15345 Incandescent Bulb, G25-40W, Soft White Finish, Medium Base, Pack of 3

★★★★☆ 5 customer reviews

Amazon's Choice for "g25 bulb"

Was: \$13.18

Price: \$5.91 (\$1.97 / Piece) ✓prime

You Save: \$7.27 (55%)

Get \$70 off instantly: Pay \$0.00 upon approval for the Amazon Prime Rewards Visa Card.

- 40 watt incandescent bulb
- Produces 265 lumens of light
- Average life of 2,250 hours
- Pack Size: 3 bulbs
- › See more product details

Compare with similar items



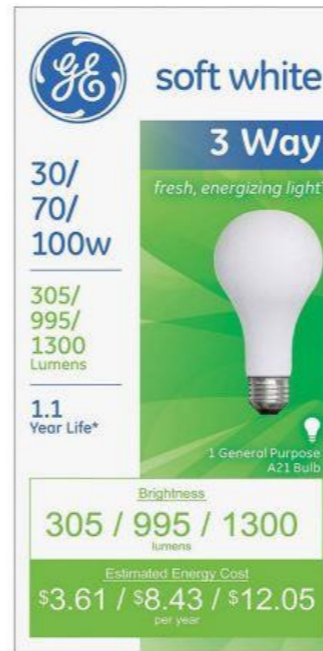
# Which one would a less informed consumer buy?

- Consumer faced with two choices:
- Buy the 3 pack for around \$4 or the other one for \$11.50, which cost three times more?
- LED bulb is far better deal - will pay for itself in a year or so.
- This is why we need standards



Consumer who buys the incandescent 3 pack loses big time! LED 3 pack will save >\$100 over the bulbs' lifetime.

# Old 3-ways could become substitute 60 and 100 W bulbs



GE SoftWhite Light Bulb 3-Way 30/70/100 Watt

1 ea, (1 Pack)

More from [General Electric](#)

SKU: 1227160-1

Be the first to review!

**\$0.87** (\$0.87 per unit) FREE Shipping Eligible on orders over \$49\*

<b>\$0.87</b> 1 Pack	<b>\$0.84 ea</b> Save 3% <b>\$2.53</b> 3 Pack	<b>\$0.83 ea</b> Save 5% <b>\$4.96</b> 6 Pack	<b>\$0.81 ea</b> Save 7% <b>\$9.71</b> 12 Pack
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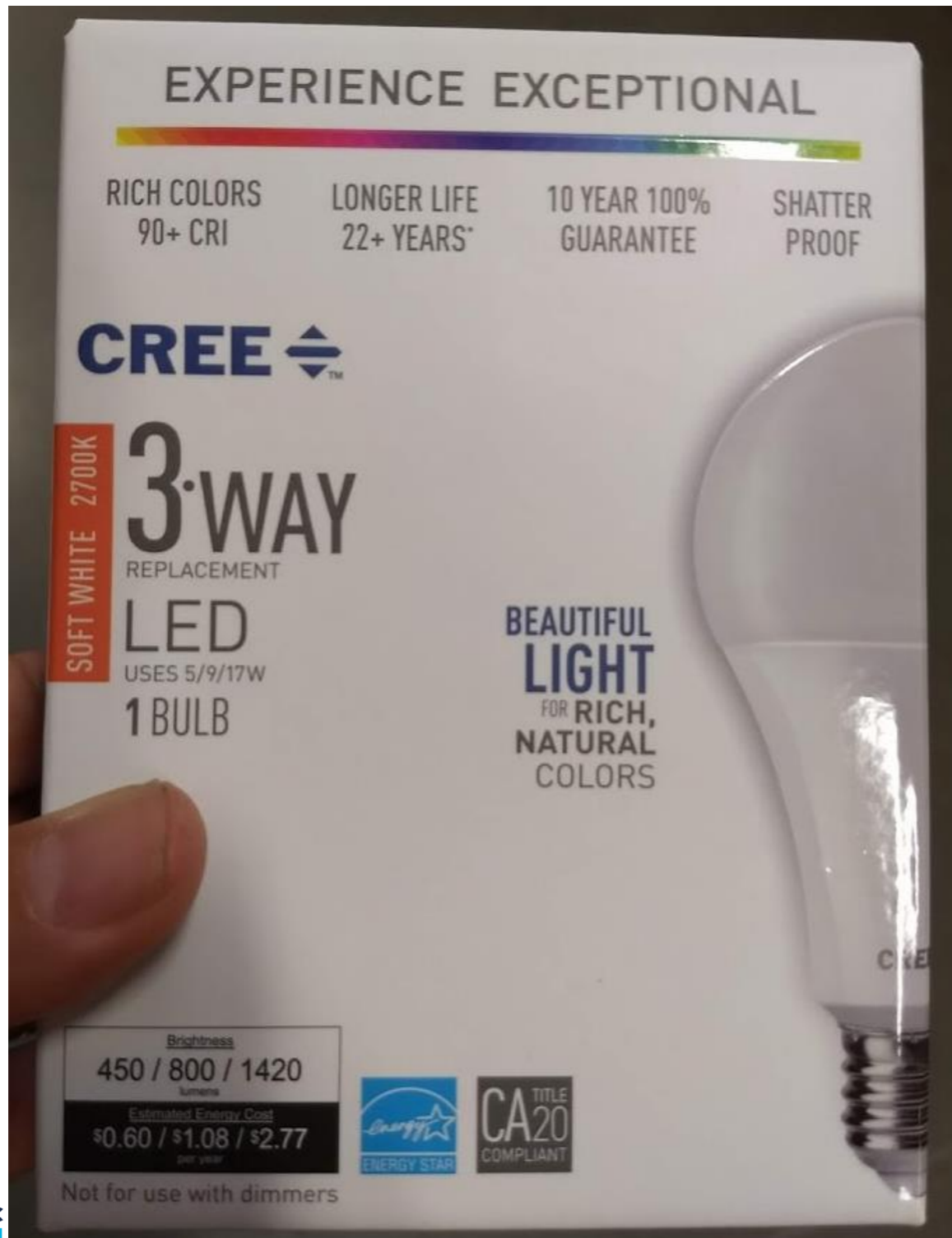
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Sales of these bulbs could easily explode. [Web price](#) under a \$1!

Note, these are even less efficient than the old incandescent bulbs!

# Drop-in LED Bulbs Already Available for Those that Want a 3-Way





# Broad Selection of Flame/Candle Shaped Incandescents Remain Widely Available in CA



- While incandescent and halogen A-lamps are almost gone from the shelves in CA, still lots of flame/candle shaped lamps (both medium and candelabra bases) remain
- LED replacements widely available today

# LED Replacements Already Exist for Various Light Outputs and Base Types from Lots of Different Manufacturers



# Make sure CA enforces its 45 LPW minimum efficiency standard that went into effect on 1/1/2018

Still lots of halogen lamps on the shelf at local hardware stores in CA (see photo taken on 8/22/18).

Check date of manuf code and take appropriate action

