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## Results of Invitation to Participate: General Service Lamps (Expanded Scope)

Phase II: Appliance Efficiency Pre-Rulemaking Appliances & Outreach & Education Office Efficiency Division

Patrick Saxton Senior Electrical Engineer California Energy Commission: Rosenfeld Hearing Room July 21, 2017



# Agenda

- Purpose
- Respondents to Invitation to Participate
- Information Requested
- Responses Received
- General Comments
- Next Steps



# Purpose

- The Energy Commission is gathering information for Phase 2 products for appliance efficiency regulations
- The Invitation to Participate (ITP) is an opportunity for stakeholders to provide information and data that will help shape the Energy Commission's policy regarding Phase 2 appliances



## Purpose

- The ITP requested information and data on the following topics:
  - Commercial and Industrial Fans & Blowers
  - General Service Lamps (Expanded Scope)
  - Spray Sprinkler Bodies
  - Tub Spout Diverters
  - Irrigation Controllers
  - Set-Top Boxes
  - Low Power Modes & Power Factor
  - Solar Inverters



## Purpose

• During this portion of the workshop, we will discuss the information and data submitted for General Service Lamps (Expanded Scope)



#### Respondents to Invitation to Participate

- Alliance to Save Energy (ASE)
- American Council for an Energy-Efficient Economy (ACEEE)
- Appliance Standards Awareness Project (ASAP)
- California Investor-Owned Utilities (CA IOUs)
- Consumer Federation of America (CFA)
- LEDVANCE LLC
- National Electrical Manufacturers Association (NEMA)
- National Resource Defense Council (NRDC)
- Northeast Energy Efficiency Partnerships (NEEP)
- Northwest Energy Efficiency Alliance (NEEA)
- Sacramento Municipal Utility District (SMUD)



## Information Requested

- Product Definition & Scope
- Market Characteristics
- Installed Base Characteristics



• Most comments expressed support for adopting the definitions from the two final rules as published in the Federal Register on 1/19/2017

- Increase energy and cost savings & close loopholes

- Two comments from industry organizations did not support
- Several recommended further expansion of the scope by reducing the lower limit on lumen output to align with the state-regulated LED lamp regulations



- Noted the DOE final rules include additional product definitions (e.g., black light lamp, colored lamp) that must be considered simultaneously
  - The Energy Commission concurs
- Two industry organizations commented that this topic should be delayed until the U.S. Department of Energy (DOE) acts on NEMA's request to complete a GSL rulemaking



- NEMA has petitioned for judicial review of the two 1/19/2017 final rules
  - NEMA and DOE agreed to an out of court settlement on 7/7/2017
  - Will result in DOE opening rulemakings that likely affect this topic



- Two industry organizations opined that California's regulations for LED lamps, small-diameter directional lamps, and general service lamps (45 lumen per watt backstop) are not effective for 1/1/18 due to preemption
  - The Energy Commission published a regulatory advisory for lamps on March 30, 2017, confirming that three California regulations on lamps will be effective for lamps manufactured on or after January 1, 2018
    - <u>http://energy.ca.gov/appliances/documents/2017-03-30\_Regulatory\_Advisory\_Lighting.pdf</u>



- Several commenters recommended an effective date as early as possible in order to achieve incremental benefits prior to the 1/1/2020 federal effective date
- Several commenters cited the Lawrence Berkeley National Labs (LBNL) analysis of the national impact from the updated GSL definitions for savings estimates
  - Commenters suggested weighting the national impact by population (~12%) or housing units (~10.4%) to estimate the California impact
  - CA savings of approximately 2.8 quadrillion Btus (quads) with net present value in range of \$12.5-22.9B
    - Savings estimate is for the full fuel cycle



#### Market Characteristics

- NEMA lamp indices as a data source for market trends
- Broad availability of LED versions of lamp types that would be covered by an expanded scope
  - The Commission remains interested in the availability of LED lamps meeting California regulations which become effective 1/1/2018
- Significant decline in LED prices over last several years
  - CA IOUs submitted data for time period 12/2013 to 4/2016
  - 1,600 unique price points per month from 9 online retailers
  - Lamps with 80-90 lpw had the lowest prices



#### **Installed Base Characteristics**

- Recommended use of the LBNL analysis of the updated GSL definitions to determine estimates of California existing stock and average daily hours of use by lamp type
  - Estimates the non-EISA-explicit lamp types have a nationwide installed stock at least 80% as large as the stock of EISA-explicit GSLs
  - Commenters suggested weighting the national stock estimates by population or housing units to estimate the California stock
  - Residential, 1.7-2.9 hours of daily use
  - Commercial, 10.7 hours of daily use



#### **General Comments**

• Are there any other topics stakeholders wish to discuss?

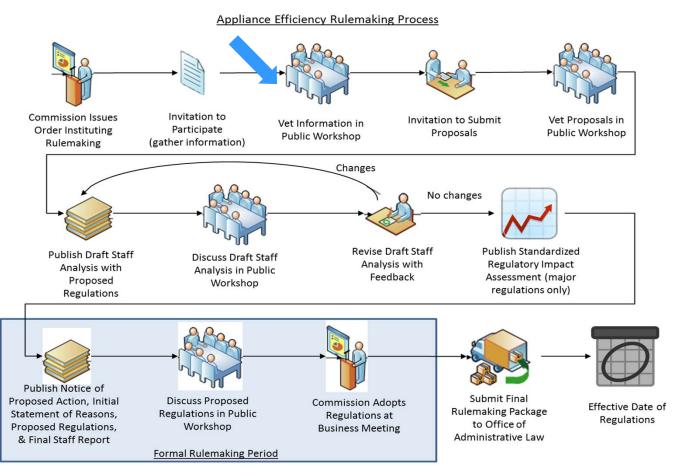


# Next Steps

- Following the ITP workshops, the Energy Commission will request proposals for efficiency standards or measures
- Proposal template and guidance is forthcoming
- Commission staff are available to discuss questions and concerns at any time during the proceeding



#### **Public Participation**



1/27/17



#### Discussion & Comments

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