DOCKETED	
Docket Number:	17-AAER-05
Project Title:	Phase II Pre-Rulemaking
TN #:	220276
Document Title:	Presentation - Results of Invitation to Participate – GSL
Description:	Presentation for GSL by Patrick Saxton
Filer:	Ryan Nelson
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	7/20/2017 8:29:52 AM
Docketed Date:	7/20/2017



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?

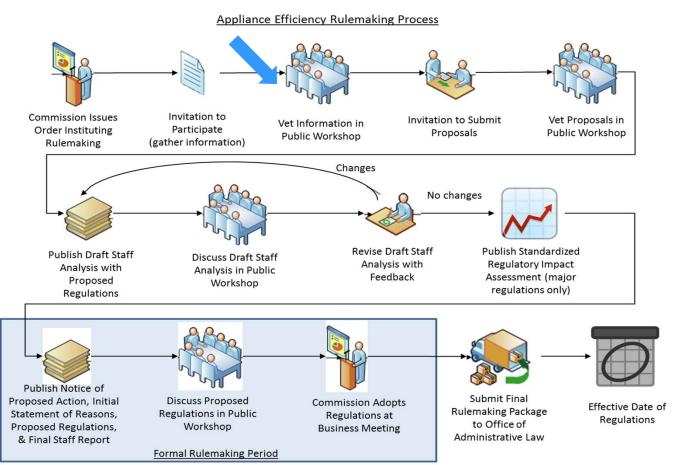


Next Steps

- 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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