

Invitation to Participate Multifaceted Reflector Lamps

2013 Appliance Efficiency Rulemaking
California Energy Commission

May 30, 2013

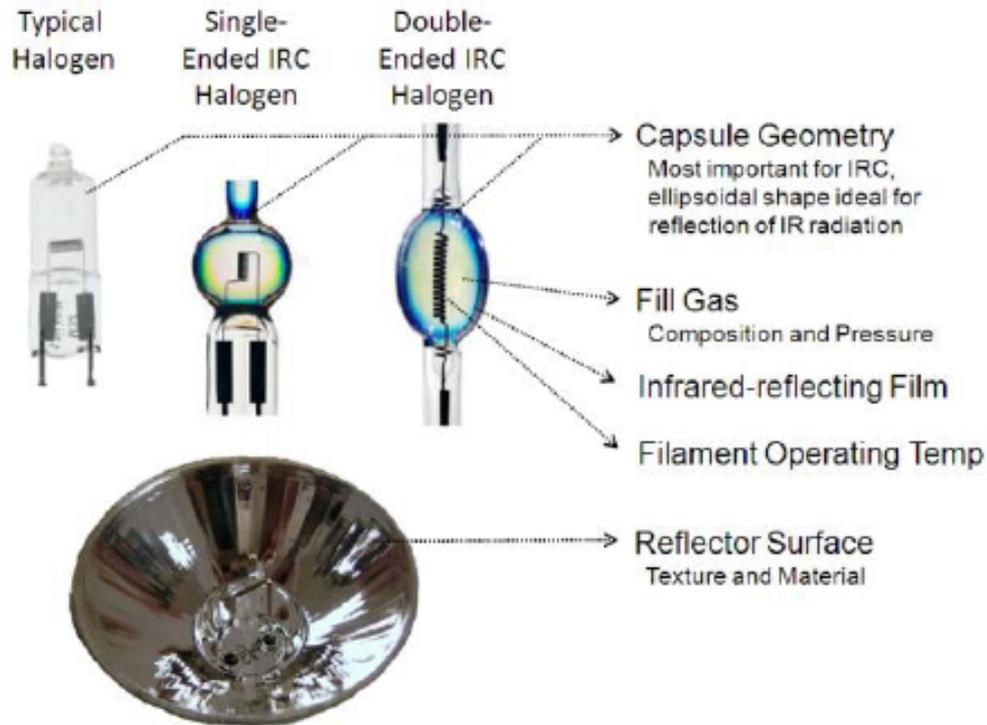
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Multifaceted Reflector Lamps



Purpose of Workshop

- ❑ The Commission is gathering information to determine how to proceed with Dimmable Ballasts in Phase 1 of the OIR.
- ❑ This ITP is an opportunity to provide information, data, and to help develop efficiency measures for Dimmable Ballasts.
- ❑ During this session, we will discuss the information and data we've received from stakeholders related to Dimmable Ballasts.
- ❑ Staff will discuss next steps and will respond to questions and concerns on how to submit proposals.



Stakeholders responding to ITP

- Natural Resources Defense Council (NRDC)
- Investor Owned Utilities (IOUs):
 - 8 submittals that contained data, information and reports
- American Council for an Energy-Efficient Economy (ACEEE)
- Appliance Standards Awareness Project (ASAP)
- National Grid
- Northwest Energy Efficiency Alliance (NEEA)
- Northeast Energy Efficiency Partnerships (NEEP)
- National Electrical Manufacturers Association (NEMA)



Information Requested

- ❑ Product Definition & Scope
- ❑ Test Procedures
- ❑ Sales and Stock
- ❑ Existing Standards & Standards in Development
- ❑ Product Design Life and Duty Cycle
- ❑ Product costs and Incremental Cost for efficient Products
- ❑ Energy Savings/Unit and Baseline Energy Consumption
- ❑ Peak Demand Energy Use
- ❑ Market Strategy
- ❑ Consumer Benefits and Impact on the State's Economy



Sales and Stock

IOU's provided the sales, stock, and duty cycle information based on a 2011 Navigant report.

65%	Commercial Market Share
3720	Commercial hours of operation/year
35%	Res Market Share
840	Res hours of operation/year
2712	Annual Operating hours

Table 4: Stock & Shipments are based on Navigant 2011 Report.

122.20	US Stock (Millions) in 2011
12%	% California
14.66	California Stock (Millions) in 2011
1.3%	Annual Growth
14.85	Annual Shipments (Millions) in 2012



Design Life and Cost

- The Navigant report submitted by the IOU's states that these lamps have the shortest lifespan of available technology types on the market (~1,500–3,000 hours).
- The IOU's also state that upfront costs for MR Lamps range from \$2 to \$5 per lamp. LED replacement lamps range in cost from \$16 to \$45.



Lamp Performance Characteristics

Summary of Ranges for Typical Performance by Lamp Technology

Lamp Performance Characteristics	Halogen - non IR	Halogen Infrared Lamps	LEDs Replacement Lamps
Lumen Output	200-950	200-950	200-650
Wattage Availability (most predominant)	20W, 35W, 50W	20W, 30W, 37W	3-10W
Beam Angle Availability	10-60	10-60	10-60
Efficacy (lpw)	5 to 13	12 to 30	35 to 70



Next Steps

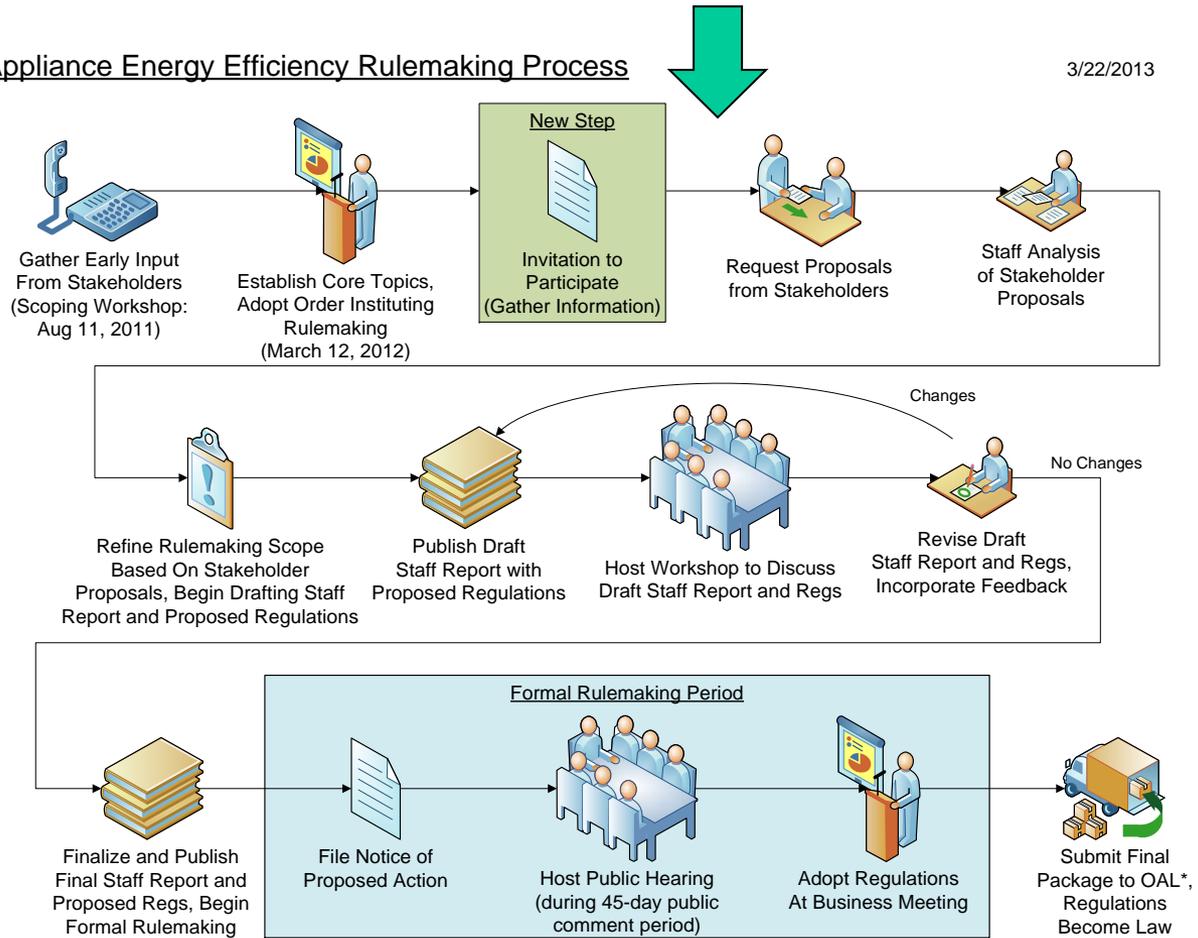
- ❑ Following the ITP workshops, the Commission will request proposals for new/updated efficiency measures.
- ❑ Interested parties may submit proposals from **June 10 to July 25, 2013.**
- ❑ Proposal Template and Guidance documents are forthcoming.
- ❑ Commission staff are available to discuss questions and concerns at any time during the proceeding.



Public Participation

Appliance Energy Efficiency Rulemaking Process

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Discussion & Comments

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MR Lamps Docket #12-AAER-2B

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