

# Invitation to Participate Computers

2013 Appliance Efficiency Rulemaking  
California Energy Commission

April 5, 2013

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# The California Energy Commission

- ❑ The state's primary energy policy and planning agency, created by the Legislature in 1974
- ❑ Responsibilities include promoting energy efficiency and conservation by setting minimum appliance and building efficiency standards, and other cost-effective measures
- ❑ The Commission's appliance and building energy efficiency standards have saved Californians more than \$74 billion in reduced electricity bills since 1975



# Appliance Efficiency – A Statutory Mandate

## Warren-Alquist State Energy Resources Conservation and Development Act

Public Resources Code Section 25402(c)

Requires the Commission to adopt minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy and water efficient appliances whose use requires a significant amount of energy or water on a statewide basis.



# Scoping Workshop

August 31, 2011

- ❑ The Commission held a Public Workshop to seek comments about the proposed scope of potential new appliance efficiency measures.
  
- ❑ Interested parties
  - gave technical presentations
  - provided comments
  - submitted proposals for various appliances



# Order Instituting Rulemaking

March 14, 2012

- ❑ The Commission issued an Order Instituting Rulemaking (OIR) to begin the process of considering standards, test procedures, labeling requirements, and other efficiency measures for a number of appliances.
- ❑ The rulemaking was divided into three phases based on the information provided by the stakeholders and staff analysis.
- ❑ More information related to this proceeding is available online.  
<http://www.energy.ca.gov/appliances/2012rulemaking/index.html>



# Purpose of Invitation to Participate

- ❑ The Commission is gathering information to determine how to proceed with products listed in Phase 1 of the OIR.
- ❑ The ITP is an opportunity for stakeholders to inform the Commission's policy, direction, and process.
- ❑ ITP requests product, market, and other relevant information.
- ❑ All interested parties are encouraged to take advantage of this important opportunity to shape the development of draft efficiency standards and measures.



# Phase 1 Products

- ❑ **Consumer Electronics**  
(computers, displays, game consoles and set-top boxes)
  
- ❑ **Lighting**  
(fluorescent dimming ballasts, light-emitting diodes and multifaceted reflector lamps)
  
- ❑ **Water Appliances** (faucets, toilets, urinals, and water meters)
  
- ❑ **Other Appliances** (commercial clothes dryers, air filter labeling, residential pool pumps & motors and portable electric spa labeling)



# Basic Information

Basic Information Requested (page 2 of the ITP):

- ❑ Product Definition and Scope
  - ❑ Desktops, notebooks, tablets, thin clients, work stations?
  - ❑ Performance categories (similar to ENERGY STAR)?
- ❑ Existing Test Procedures
- ❑ Sources of Test Data
- ❑ Existing Standards and Standards under Development
- ❑ Product Lifetime
- ❑ Product Development Trends



# Operations, Functions, and Modes

- ❑ What are defined modes of operation for computers?
- ❑ What power management features do computers have at both the system and subsystem levels?
- ❑ What are common settings for these features as shipped and in preset energy saving or performance modes?
- ❑ What is the power use of computers and their subsystems (such as a graphics card) in the various modes of operation for existing and the next generation computers?



# Operations, Functions, and Modes (cont'd)

- ❑ How does power use scale with the utilization of hardware such as processors, graphics cards, wireless networking etc?
- ❑ What components and functions represent a fixed power use while the computer is on or in a sleep state?
- ❑ How much time computers in their various modes both in commercial and residential applications? How frequently are various functions of a computer in utilization such as “wake on LAN?”



# Energy Saving Technologies, Components, and Features

- ❑ How long does it take a computer to wake from various sleep modes? What contributes to this wake time?
- ❑ To what extent is the efficiency developed for mobile computing incorporated in desktop computers?
- ❑ To what extent is the efficiency developed for slate devices incorporated in notebook computers?



# Energy Saving Technologies, Components, and Features (cont'd)

- ❑ What are the design practices and technologies incorporated into the most efficient computers?
- ❑ What are the incremental costs associated with more efficient hardware?
- ❑ How well are hardware efficiency features utilized by computer system software?
- ❑ To what extent are hardware efficiency features dependent on proper enabling by users? Which features are enabled by default?
- ❑ What are the power management settings in California's current stock of computers? What are the settings in new computers being offered for sale?



# Market Characteristics

- ❑ How many computers are sold each year in California? How many are currently in use? Form factor? Performance category? Commercial or residential? How are these expected to grow?
- ❑ To what extent is the computer market uniform or different within the state, country, continent, and world?
- ❑ Is there a particular time of the year when new models are released?
- ❑ What is the range of efficiency in the market for computers with similar performance? How much variance is there?
- ❑ How frequently are computers updated after initial release (firmware and hardware)?



# Market Competition for Efficiency Products

- ❑ How many small businesses are involved in the manufacture, sale, or installation of these products?
- ❑ What are the current market drivers towards improving computer efficiency?
- ❑ What markets and currently place requirements on the efficiency of computers through regulations or procurement requirements?
- ❑ How are consumers able to identify the most efficient products on the market? The least efficient?
- ❑ What is the current market share of computers that meet ENERGY STAR's computer specifications 4, 5.2, and current draft 6.



# Other

- ❑ What types of operations prevent a computer from automatically entering sleep mode?
- ❑ To what degree do background programs and services affect energy consumption?
- ❑ What product development trends in the computer market may have an impact on power consumption or proper categorization of devices?
- ❑ What are the incremental costs between the different levels of 80 plus compliant power supplies and power supplies that do not meet the 80 plus specifications? What are the main drivers of these costs?



# How to Submit Data & Information

- ❑ Responses to the Invitation should be submitted in writing to the Dockets Unit by 4:00 p.m. (Pacific Daylight Savings Time) on May 9, 2013.
- ❑ The Commission encourages interested parties to send information **up to 5 MB** by e-mail at [docket@energy.ca.gov](mailto:docket@energy.ca.gov)
- ❑ To comment on Computers please include 12-AAER-2A in the subject line.



# How to Submit Data & Information

(Continued)

- If the file size is more than 5 MB, if the information includes an application for confidential designation, or if you prefer, paper copies of responses with electronic information provided on a CD or DVD may be sent to:

California Energy Commission  
Dockets Office, MS-4  
Re: Docket No. 12-AAER-2A  
1516 Ninth Street  
Sacramento, CA 95814-5512



# Confidentiality of Data

If interested parties need to maintain the confidentiality of specific data or information, they should contact Jared Babula in the Commission's Chief Counsel's Office *before* submitting a response to this Invitation. Otherwise, all responses received will become publicly available.

**Jared Babula,**

California Energy Commission,

Chief Counsel's Office

1516 Ninth Street, MS 14, Sacramento, CA 95814-5512

Telephone: (916) 651-1462

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



# Next Steps

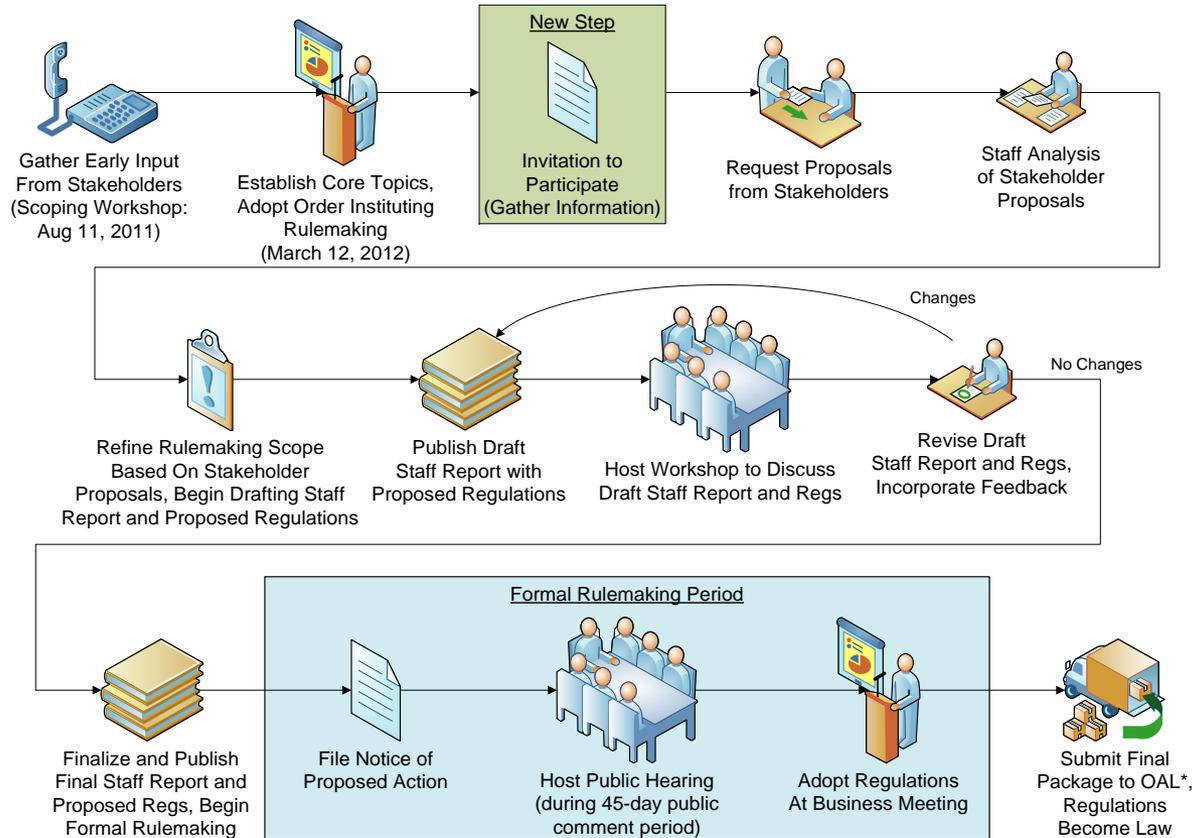
- ❑ Public workshop after the close of the ITP comment period to consider the merits of information and data received.
- ❑ Following the workshop, the Commission will request proposals for updated efficiency standards or measures.
- ❑ These proposals should be based on the information received through the ITP.
- ❑ Commission staff are available to discuss questions and concerns at anytime during the proceeding.



# Public Participation

Appliance Energy Efficiency Rulemaking Process

3/22/2013



\*Office of Administrative Law



# Contact Information

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Please submit data and information to  
Product-Specific Docket #12-AAER-2A  
at [docket@energy.ca.gov](mailto:docket@energy.ca.gov)

The ITP is available online:

<http://www.energy.ca.gov/appliances/2013rulemaking/>

