

Memorandum

To: Robert Oglesby
Executive Director

Date: March 1, 2012

Telephone: (916) 654-5013

From: **California Energy Commission**
1516 Ninth Street
Sacramento CA 95814-5512

Panama Bartholomy
Efficiency and Renewable Energy Division

Subject: CONSIDERATION OF ORDER INSTITUTING RULEMAKING PROCEEDING FOR THE APPLIANCE EFFICIENCY REGULATIONS

Summary of Item

State law and policy set forth ambitious energy efficiency requirements and goals for appliance efficiency. Aggressive measures are necessary if the State is to achieve its objectives for reducing the demand for electricity and GHG emissions. A key strategy for meeting these goals and objectives is the adoption of stronger appliance efficiency regulations.

As part of this effort, the Energy Commission conducted a public workshop on August 31, 2011 to discuss and seek comments from interested parties regarding the scope of future proceedings to amend the Appliance Efficiency Regulations.

The scoping workshop was held to obtain public feedback regarding possible new appliance efficiency standards under Title 20. Potential top priorities under a new 2011 scoping order are to meet the appliance efficiency mandates established in Assembly Bill 1109 (Huffman, Chapter 534, Statutes of 2007), and Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006).

Building on the foundation set at the scoping workshop, staff has developed this proposed rulemaking which will proceed in three phases and will cover the following categories of appliances and regulatory matters:

- Consumer electronics;
- Lighting;
- Water-using appliances and "white goods" (i.e., large household appliances formerly finished with white enamel, but now often colored, such as refrigerators, freezers, clothes washers, clothes dryers, dishwashers, and cooking ranges and ovens of different types);
- Updates and clarifications to existing standards; and
- Additional priority matters as determined by the Lead Commissioner.

The number and scope of the phases in this proceeding may be modified as needed and will follow one or more scoping workshops, with appropriate attention

Robert Oglesby
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to staffing requirements and resources. It is anticipated that all three phases will be complete by 2015.

Conducting this rulemaking is an important tool in meeting Governor Brown's Clean Energy Action Plan, which specifies the adoption of stronger appliance efficiency standards. The adoption of Appliance Efficiency Regulations in 2009 alone resulted an estimated 17,896 GWh statewide of energy savings.

Project Manager

Gerald Berumen, Appliances and Process Energy Office

Business Meeting Participants

Panama Bartholomy Deputy Director, Efficiency and Renewable Energy Division
Michael Leon, Manager, Appliances and Process Energy Office
Gerald Berumen, Appliances and Process Energy Office
Harinder Singh, Appliances and Process Energy Office
Ken Rider, Appliances and Process Energy Office

Commission Action Requested

Approve the order instituting rulemaking proceeding for the appliance efficiency regulations.



PANAMA BARTHOLOMY, Deputy Director
Efficiency and Renewable Energy Division

STATE OF CALIFORNIA

**ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION**

2012 Rulemaking on) Docket No. 12-AAER-2
Appliance Efficiency Regulations) Order 12-0314-16
_____)

ORDER INSTITUTING RULEMAKING PROCEEDING

I. PURPOSE OF THE PROCEEDING

The California Energy Commission ("Commission") hereby institutes a rulemaking proceeding, the purpose of which is to consider amendments to the Commission's Appliance Efficiency Regulations (Title 20, Cal. Code Regs., §§ 1601 - 1608). Specifically, the Commission will consider establishing efficiency standards, test procedures, marking & labeling requirements, and other regulations for a variety of appliances that consume a significant amount of energy or water. The ultimate goal of this rulemaking is the reduction of excessive energy and water consumption by regulated appliances in the state.

This action is taken under the authority of Public Resources Code Sections 25210, 25213, 25218(e), 25402(c)(1), and 25402.5, and Sections 1220 – 1225 of Title 20 of the California Code of Regulations.

II. DELEGATION OF AUTHORITY

At this time the Commission will not appoint a committee to preside over this rulemaking proceeding (pursuant to Public Resource Code section 25211); however the Commission reserves the right to appoint such a committee at a later date. Commission staff shall be responsible for taking all appropriate actions necessary to comply with all applicable legal requirements of the Public Resources Code, Administrative Procedure Act (APA), the California Environmental Quality Act (CEQA), etc. Staff will also ensure the timely submittal of all necessary rulemaking documents to the Office of Administrative Law (OAL).

III. SCOPE OF THE PROCEEDING

It is anticipated that this rulemaking will proceed in three phases and will cover the following categories of appliances and regulatory matters:

- Consumer electronics;
- Lighting;

- Water-using appliances and “white goods” (i.e., large household appliances formerly finished with white enamel, but now often colored, such as refrigerators, freezers, clothes washers, clothes dryers, dishwashers, and cooking ranges and ovens of different types);
- Updates and clarifications to existing standards; and
- Additional priority matters as determined by the Lead Commissioner.

The number and scope of the phases in this proceeding may be modified as needed and will follow one or more scoping workshops, with appropriate attention to staffing requirements and resources. The proposed phases and topics are shown in the table below:

Topic	Phase 1: Short Term (2nd Qtr 2012 – 2nd Qtr 2013)	Phase 2: Mid Term (2nd Qtr 2013 – 2nd Qtr 2014)	Phase 3: Long Term (2nd Qtr 2014 – 2nd Qtr 2015)
Consumer Electronics	Displays; Game consoles; Computers; Set-top boxes	Servers; Imaging equipment	Low power modes; Power factor
Lighting	Dimming ballasts; Multi-faceted reflector (MR) lamps; Light-emitting diode (LED) lamps	EISA exempt lamps; Lighting accessories; Outdoor lighting	Linear fluorescent fixtures;
Water and Other	Commercial clothes dryers; Toilets and urinals; Air filter labeling; Faucets; Amend pools and spas standards Water meters	Plug-in luminous signs; Irrigation equipment	Commercial dishwashers; Recirculation pumps; Refrigeration condensing units

IV. PUBLIC PARTICIPATION

The Commission encourages public participation, any person present at a hearing or workshop shall be afforded reasonable opportunity to make comments. Written comments are also welcome, please submit written comments to:

Docket No. 12-AAER-2
California Energy Commission
1516 Ninth Street, Mail Station 4
Sacramento, California 95814-5512

To assist the Commission in this effort, the following organizations (all of which have participated in previous proceedings) are requested to provide information as directed:

- National Electrical Manufacturers Association;
- Consumers Electronics Association;

- Pacific Gas and Electric Company, Southern California Edison (SCE), SEMPRA Energy (SDG&E), and others as identified;
- Natural Resources Defense Council;
- Collaborative Labeling and Appliance Standards Program; and
- Additional organizations as designated by the lead Commissioner.

In addition, the Commission encourages participation by representatives of the regulated industry for the purpose of contributing to the topics in this order.

Information will also be posted on the Commission's webpage: www.energy.ca.gov/appliances. Anyone who would like to participate in this proceeding, please register with the Commission's Rulemaking List Server at: www.energy.ca.gov/listservers (keyword: "Appliance Efficiency Standards"). All who are registered will receive automated email messages with information regarding hearings, workshops, and updated documents.

To foster public participation in these proceedings the Executive Director, in conjunction with their Public Adviser, shall ensure that information regarding this order and notices of hearings and workshops are distributed to all interested persons via the afore mentioned Rulemaking listserv and posted on the Commission's website. The Executive Director shall also ensure sufficient advance public notice prior to consideration or adoption of final regulations by the Commission.

For additional information, please contact the Commission's Public Adviser at (800) 822-6288, or via email at pao@energy.ca.gov.

CERTIFICATION

The undersigned Secretary to the Commission does hereby certify that the foregoing is a full, true and correct copy of a Resolution duly and regularly adopted at a meeting of the California Energy Commission held on March 14, 2012.

AYE: Weisenmiller, Douglas, Peterman

NAY: None

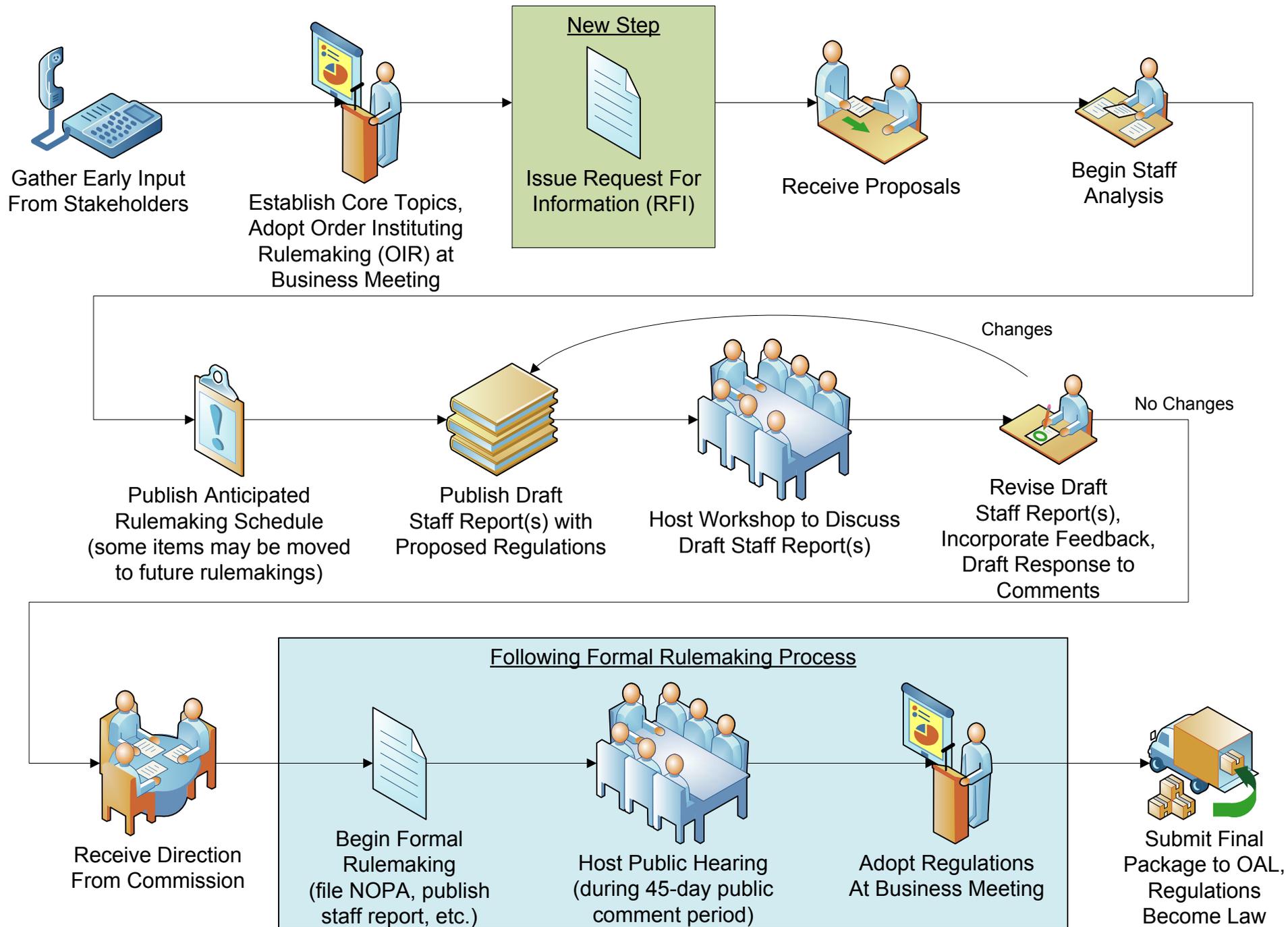
ABSENT: None

ABSENT: None

HARRIET KALLEMEYN,
Secretariat

Title 20 Rulemaking Process

2/17/2012



**Item 16:
APPLIANCE EFFICIENCY
REGULATIONS: ORDER INSTITUTING
RULEMAKING**

Hearing for Consideration
of Adoption

March 14, 2012



Appliance Efficiency Standards: Benefits to Californians

- Potential Cumulative savings: 50,000 GWh/yr
 - Existing Standards – 20,000 GWh/yr
 - New Standards (2007 OIR) – 19,100 GWh/yr
 - Proposed Standards (2012 OIR) – 12,400 GWh/yr
- Combined standards could save \$7 billion annually (electricity)
- Avoids the need for more power plants
- Reduce water use by 70 billion gal/yr



2007 OIR Completed

- Completed topics under previous OIR
 - General Service Lighting (11,000 GWh/yr)
 - Televisions (6,000 GWh/yr)
 - Battery Charger Systems (2,100 GWh/yr)
- Total Electricity Savings – 19,100 GWh/yr
 - Enough to power over 3 million homes

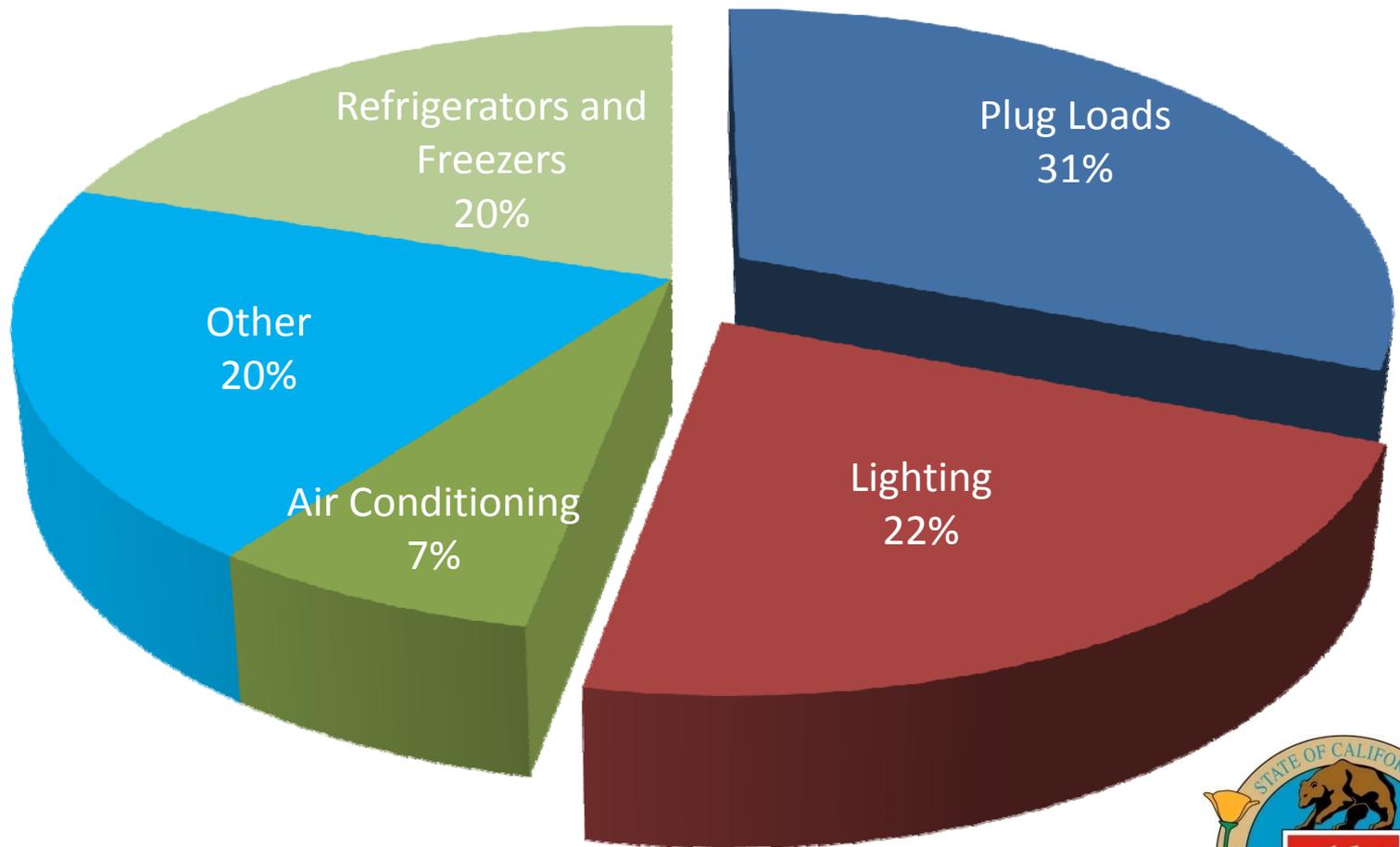


Necessity for a New OIR

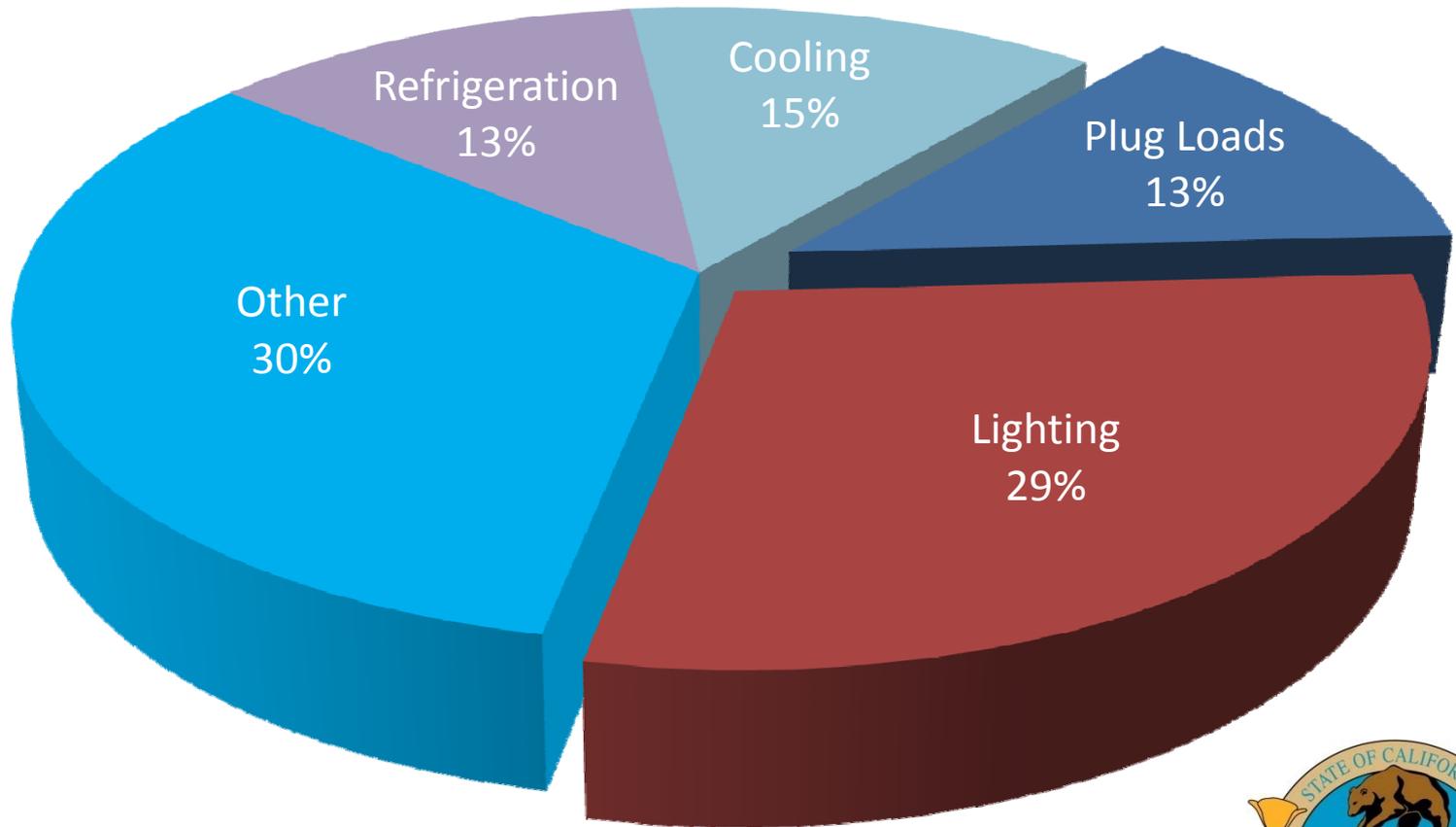
- Statutory Mandates :
 - Warren-Alquist Act
 - AB 1109 Lighting Goals
- Policy Goals:
 - Governor Brown's Energy Plan
 - 2011 Integrated Energy Policy Report
 - CPUC/CEC Energy Efficiency Strategic Plan
 - ZNE Goals
 - Codes & Standards Goals



Electricity Consumption in California Residential Buildings

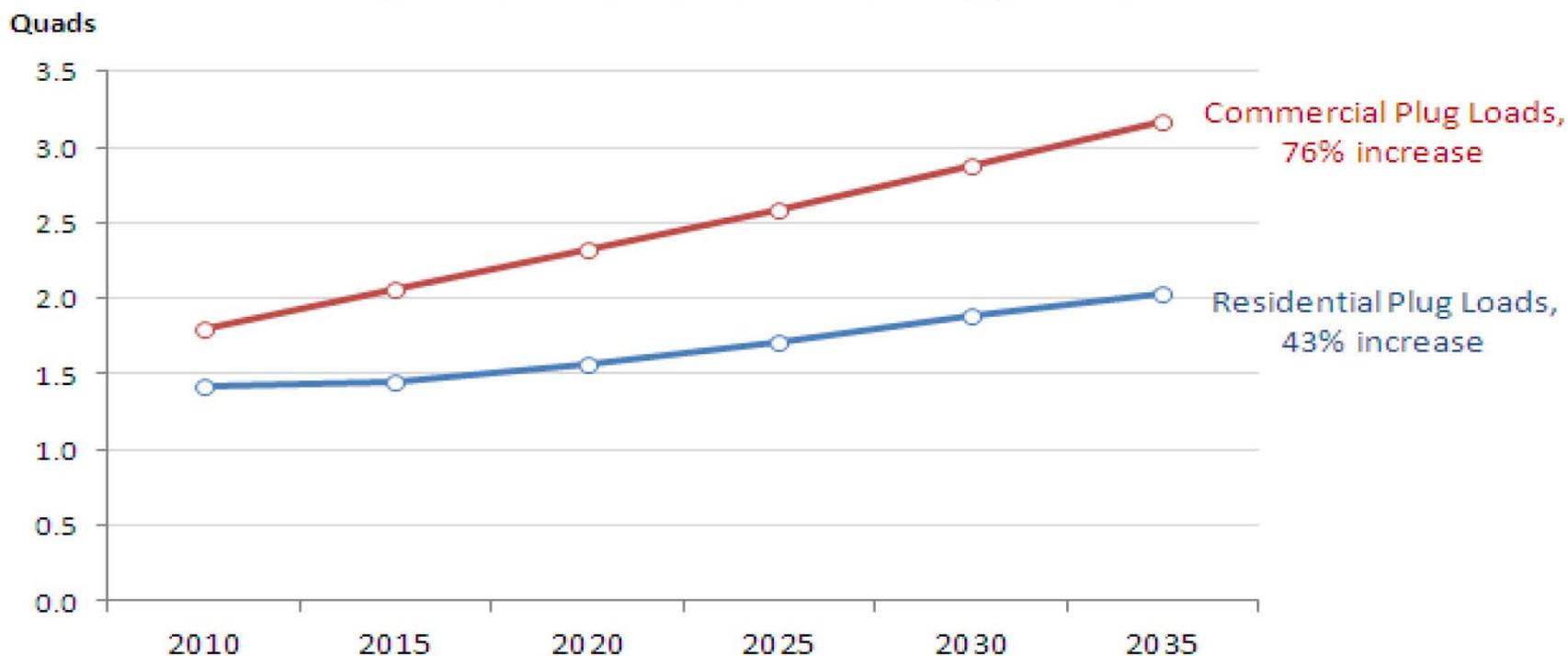


Electricity Consumption in California Non-Residential Buildings



Without Standards - Plug Load Consumption Will Rise Significantly

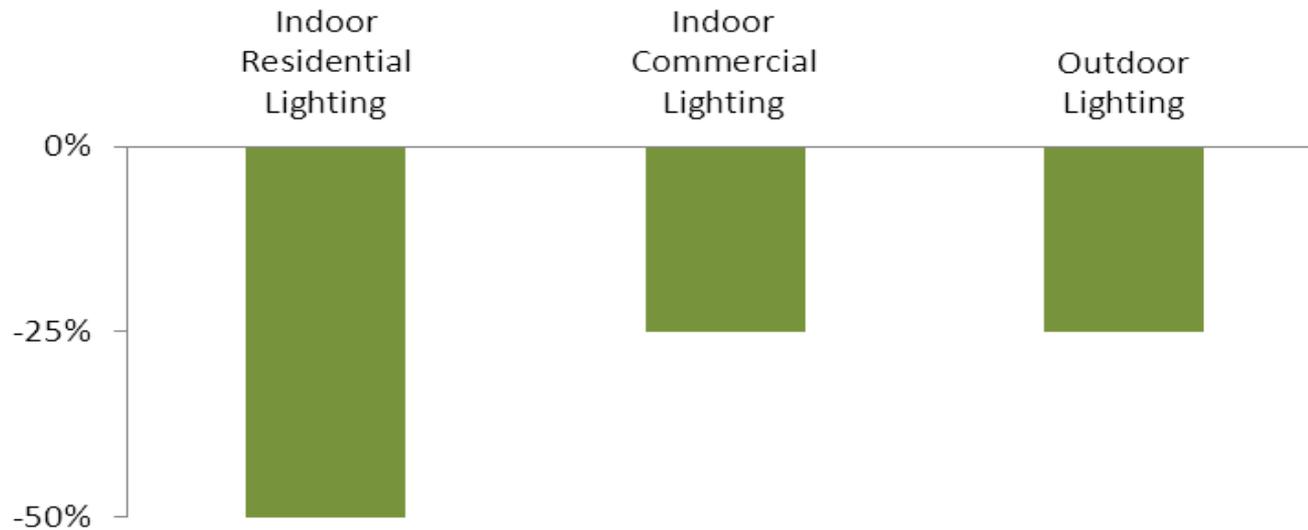
US Plug Load Equipment Energy Projection



SOURCE: CA IOU analysis of EIA's *Annual Energy Outlook 2011*. Commercial plug load categories include the following EIA categories: "Office Equipment (PC)", "Office Equipment (Non-PC)", and "Other Uses". Residential plug loads include the following EIA categories: "TVs and Set-Top Boxes", "Residential PCs and Related Equipment", and residential "Other Uses".

Addresses Statutory Reduction Requirements

AB 1109 (Huffman) lighting reduction requirements: 2018 relative to 2007 levels



**Proposed
Title 20
lighting
measures**

MR lamps
LED lamps
EISA exempt
lamps
Lighting
accessories

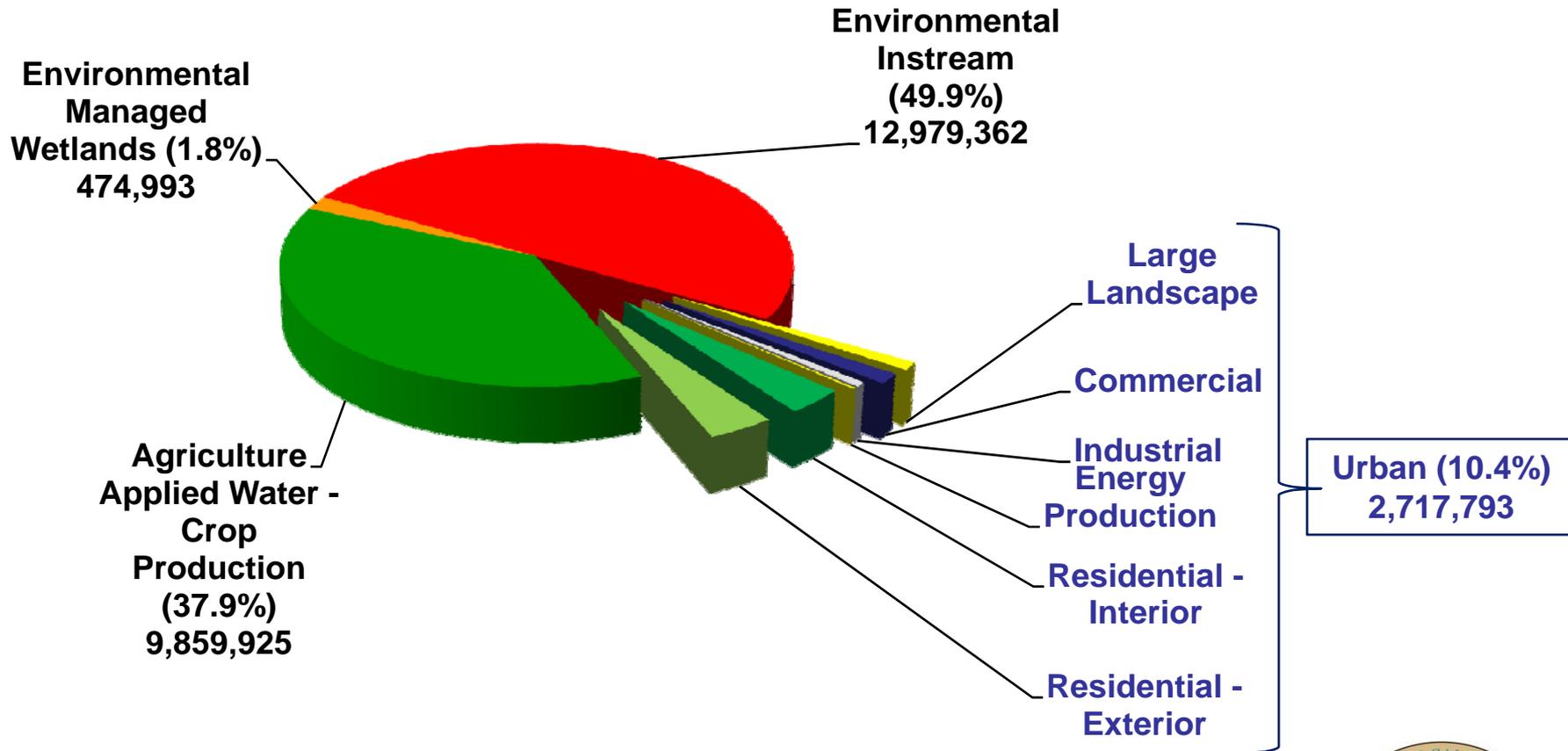
MR lamps
LED lamps
EISA exempt
lamps
Lighting
accessories
Dimming ballasts
Linear fluorescent
fixtures

Outdoor lighting
Lighting
accessories



California Major Uses of Water

(gallons)



Source: California Dept. of Water Resources, 2009 California Water Plan Update report www.waterplan.water.ca.gov/technical/cwpu2009



OIR Development

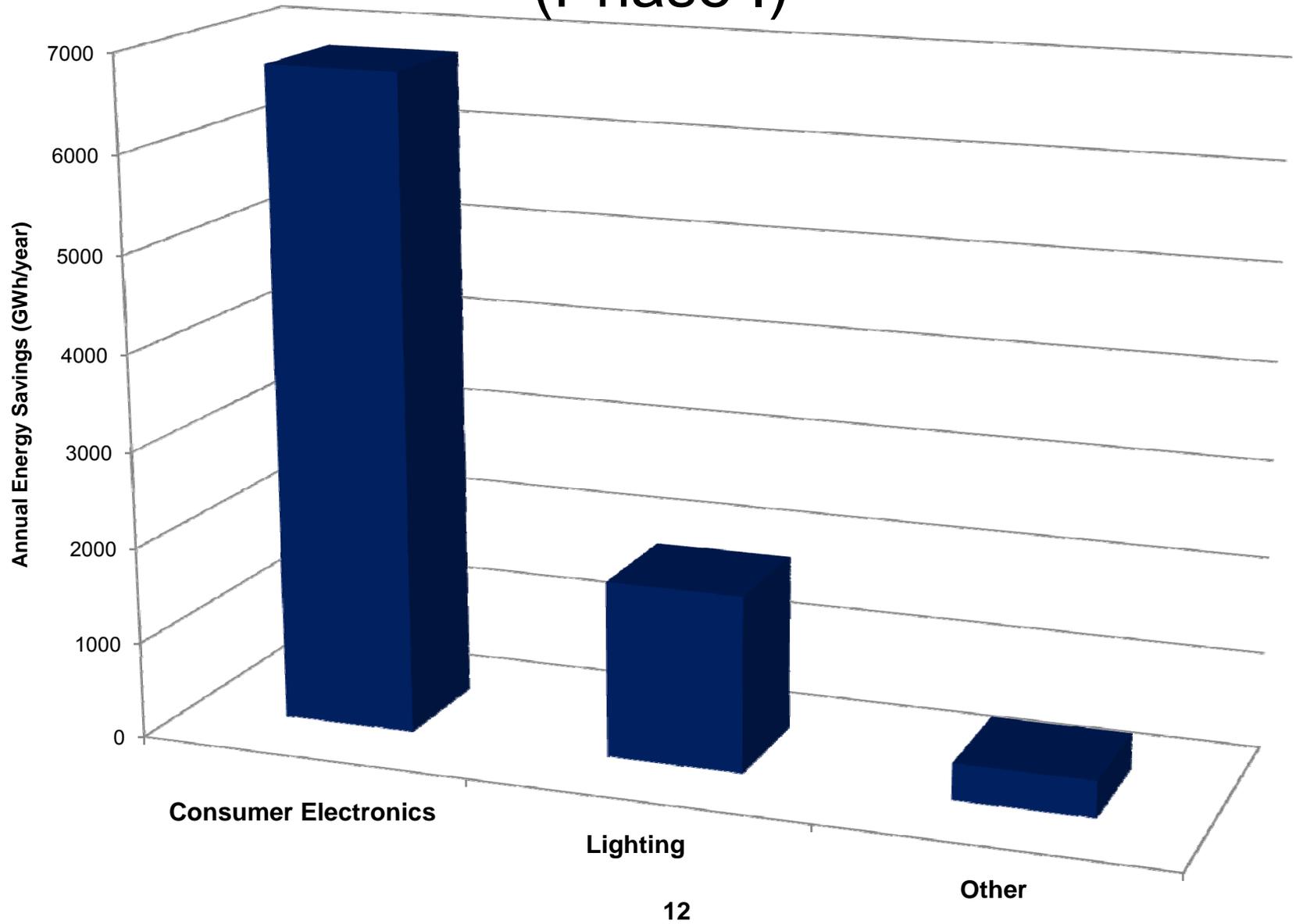
- *Scoping Workshop (August, 2011)*
 - *Review Topics and Proposals*
 - *Stakeholder comments*
 - *Timing and Scope of an OIR*
- *Staff review and analysis*
 - *26 Potential Topics*



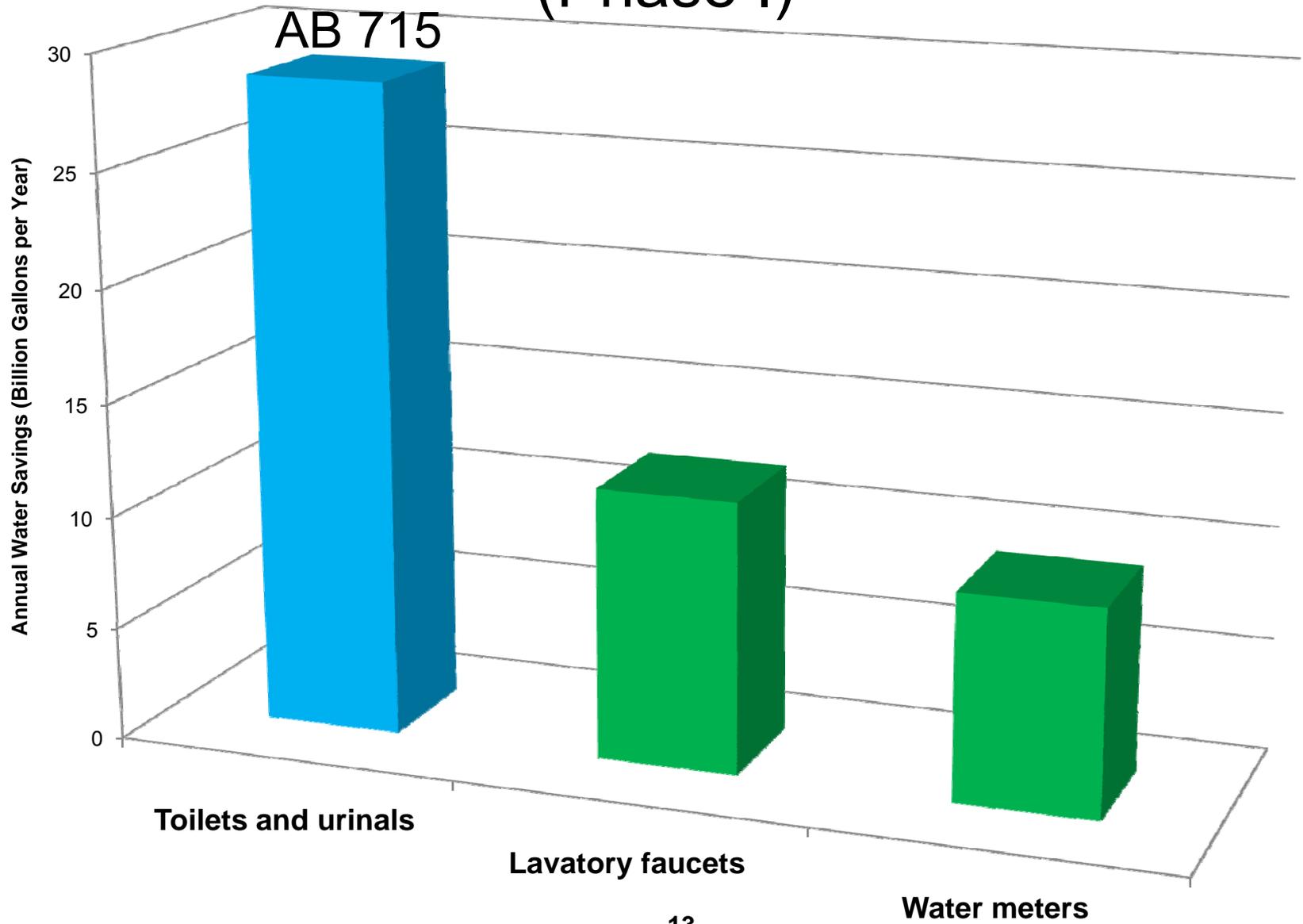
Three Phase Approach

Topic	Phase 1: (2 nd Qtr 2012 – 2 nd Qtr 2013)	Phase 2: (2 nd Qtr 2013 – 2 nd Qtr 2014)	Phase 3: (2 nd Qtr 2014 – 2 nd Qtr 2015)
Consumer Electronics	Displays; Video game consoles; Computers; Set-top boxes	Servers; Imaging equipment	Low power modes; Power factor
Lighting	Dimming ballasts; Multi-faceted reflector (MR) lamps; Light-emitting diode (LED) lamps	Lamps exempted by EISA; Lighting accessories; Outdoor lighting	Linear fluorescent fixtures
Water and Other	Commercial clothes dryers; Toilets and urinals; Air filter labeling; Faucets; Amend pool and spa pump standards; Water meters	Plug-in luminous signs; Irrigation equipment	Commercial dishwashers; Recirculation pumps; Refrigeration condensing units

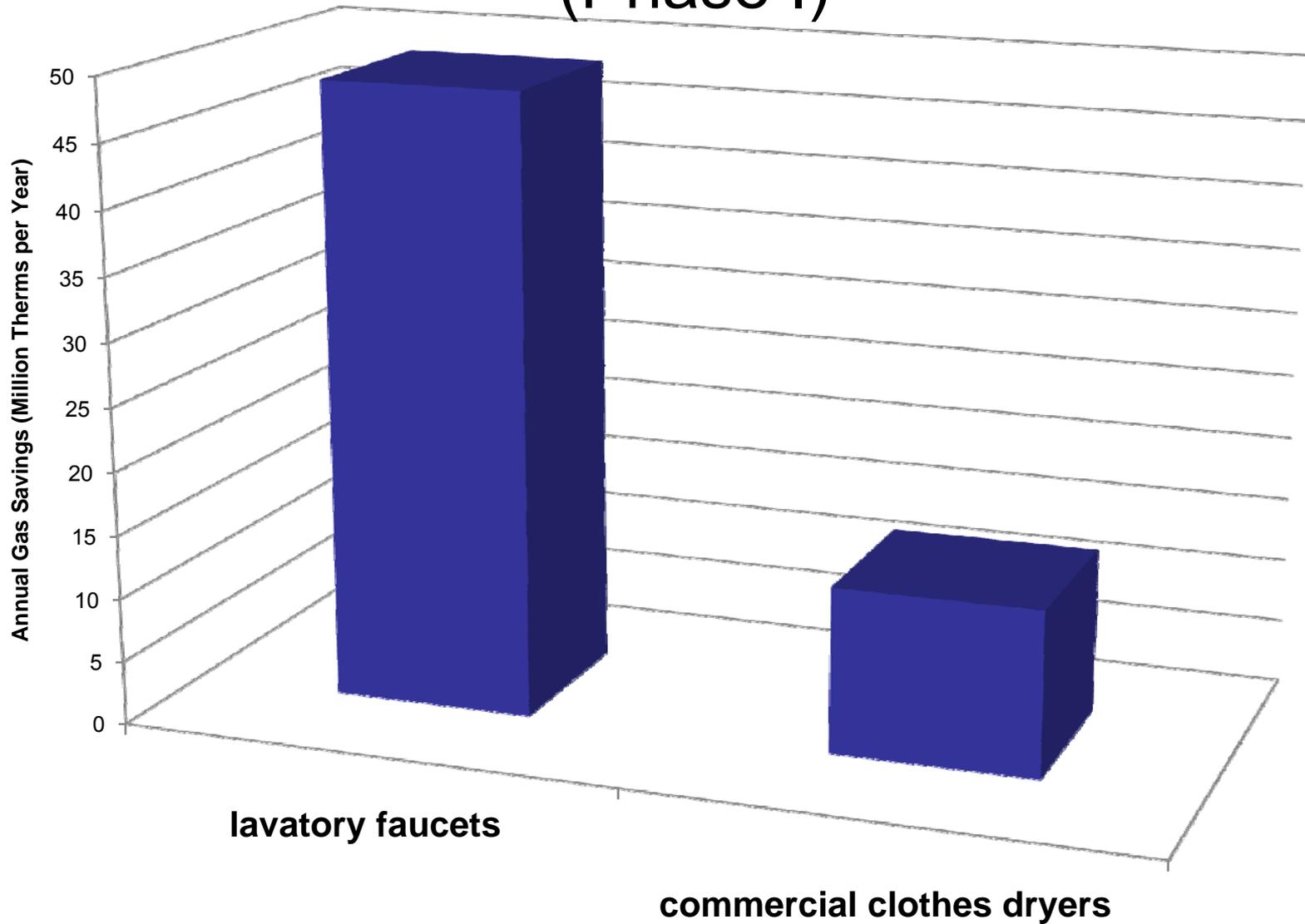
Potential Electricity Savings (Phase I)



Potential Water Savings (Phase I)



Potential Natural Gas Savings (Phase I)



Recommendation

- Adopt proposed OIR which has the potential to achieve significant savings:
 - Electricity - 12,400 GWh/yr, 2139 MW (peak reduction)
 - Water - 70 Billion gallons/yr (T24 & T20 Standards)
 - Natural Gas - 61.6 Million therms/yr



Thank You

Michael Leason, Manager

Appliances and Process Energy Office

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(916) 654-5168

