Pre-Application Workshop

Emerging Energy Efficient Technology Demonstrations (EEETD)

GFO-16-304

Energy Efficiency Research Office
Energy Research and Development Division
California Energy Commission
August 11, 2016
## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 am</td>
<td>Welcome</td>
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<tr>
<td></td>
<td>• Housekeeping</td>
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<td></td>
<td>• Background, Policy Drivers</td>
</tr>
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<td></td>
<td>• Solicitation Purpose</td>
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<td>• Key Dates</td>
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<td></td>
<td>• Eligible Applicants</td>
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<tr>
<td>10:15 am</td>
<td>Funding Groups</td>
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<td>10:20 am</td>
<td>Application Requirements</td>
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<td></td>
<td>• Attachments</td>
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<td></td>
<td>Application Evaluation</td>
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<td></td>
<td>• Screening</td>
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<td></td>
<td>• Scoring</td>
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<td></td>
<td>• Electronic Submission</td>
</tr>
<tr>
<td>10:30 am</td>
<td>Questions and Answers</td>
</tr>
</tbody>
</table>
Housekeeping

• In case of emergency

• Facilities

• Muting of WebEx during presentation

• Q&A protocol

• Updates on Solicitation Documents and today’s presentation can be found at:

  http://www.energy.ca.gov/contracts/GFO-16-304
Commitment to Diversity

The Energy Commission adopted a formal resolution strengthening its commitment to diversity in our funding programs. We continue to encourage disadvantaged and underrepresented businesses and communities to engage in and benefit from our many programs. To meet this commitment, Energy Commission staff conducts outreach efforts and activities to:

• Engage with disadvantaged and underrepresented groups throughout the state.
• Notify potential new applicants about the Energy Commission's funding opportunities.
• Assist applicants in understanding how to apply for funding from the Energy Commission's programs.
• Survey participants to chart progress in diversity outreach efforts.
We Want to Hear From You!

1-Minute Survey

- The information supplied will be used for public reporting purposes to display anonymous overall attendance of diverse groups.

- iPads are being passed around the room

- Online SurveyMonkey for WebEx Participants: https://www.surveymonkey.com/r/CEC-07-07-2016

Thanks for your time!
### HIGHLIGHTING ENERGY INNOVATION

**BY THE NUMBERS**

<table>
<thead>
<tr>
<th>DOLLARS AWARDED</th>
<th>PROJECTS AWARDED</th>
<th>MATCH FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>$167 MILLION</td>
<td>86</td>
<td>$100 MILLION</td>
</tr>
</tbody>
</table>

### Featured Projects

- **Demonstrating Energy Efficient Drying for Walnuts**
  This project will demonstrate a novel infrared technology for walnut drying at pilot and production scales.

- **Bringing A New Generation of LED Lighting Solutions to Market**
  The purpose of this agreement is to design and develop innovative light-emitting diode (LED) lighting solutions.

- **City of Fremont Fire Stations Microgrid Demonstration**
  The project will design and build low carbon-based microgrids at three fire stations.
Background

• The Electric Program Investment Charge (EPIC) is funded by an electricity ratepayer surcharge established by the (CPUC) in 2011

• The purpose of EPIC is to benefit electric ratepayers of three electric investor-owned utilities (PG&E, SDG&E, and SCE)

• EPIC projects promote greater electricity reliability, lower costs, and increased safety

• Funded projects must lead to technological advancement and breakthroughs to overcome the barriers that prevent the achievement of the state’s statutory energy goals

• Annual program funds total $162 million with 80% administered by the California Energy Commission
Policy Drivers for Building Efficiency RD&D

- AB 32 (Global Warming Solutions Act of 2006)
- AB 758 (Energy Efficiency Existing Buildings)
- SB 350 (Double efficiency by 2030)
- California Existing Buildings Energy Efficiency Action Plan
- CPUC’s Energy Efficiency Strategic Plan
- Title 20 and Title 24 Energy Efficiency Standards
Solicitation Purpose

To fund the demonstration and market deployment of innovative, pre-commercial energy efficiency technologies in existing buildings. The goal is to accelerate market adoption of these technologies while also reducing energy use and cost to facility owners and operators.

Building type funding groups:

- Group 1: Government Buildings and Facilities
- Group 2: Colleges, Universities, K-12 Schools
- Group 3: Privately Owned Buildings and Facilities
- Group 4: Military Facilities

Pre-commercial/emerging technology: Technology has not reached commercial maturity or deployed at large scales.
Phased Approach

In order to make the solicitation process efficient, staff is implementing a phased approach.

• Phase 1 will focus on the Los Angeles Basin
  – Southern California Edison territories in Los Angeles County and Orange County

• Phase 2 will be open to applications for projects in all IOU service areas statewide, but only for those groups that were not funded entirely in Phase I; and

• Phase 3 will be open to all groups in all IOU service areas statewide, if sufficient funding remains.
Solicitation Motivation

- Aims to boost reliability of Southern California’s electrical system following the Aliso Canyon gas leak.

- Timeline of events:
  - October 23, 2015, leak identified
  - January 6, 2016, Governor Jerry Brown issued a state of emergency
  - February 11, 2016, state officials announced the leak was permanently plugged.

- Estimated 97,100 tons of methane released into the atmosphere, making it the worst natural gas leak in U.S. history in terms of its environmental impact.

- The facility’s limited current operations create a possibility of electricity service interruptions.

### Average Days per Year Gas Withdrawn from Aliso (2012 - 2015)*

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average # of Days per Year Aliso Withdrawals</td>
<td>31</td>
<td>21</td>
<td>18</td>
<td>7</td>
<td>3</td>
<td>6</td>
<td>13</td>
<td>18</td>
<td>12</td>
<td>12</td>
<td>26</td>
<td>31</td>
</tr>
</tbody>
</table>

Solicitation Motivation

- Aliso Canyon supplies gas to 17 power plants in Los Angeles and Orange Counties (10,000 MW total capacity)

## Key Dates

<table>
<thead>
<tr>
<th>Activity</th>
<th>Action Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solicitation Release</td>
<td>August 1, 2016</td>
</tr>
<tr>
<td>Pre-Application Workshop Northern California</td>
<td>August 11, 2016</td>
</tr>
<tr>
<td>Pre-Application Workshop Southern California</td>
<td>August 17, 2016</td>
</tr>
<tr>
<td><strong>DEADLINE FOR WRITTEN QUESTIONS</strong></td>
<td><strong>August 23, 2016 by 5:00 p.m.</strong></td>
</tr>
<tr>
<td>Post Questions and Answers to Website</td>
<td>Week of September 6, 2016</td>
</tr>
<tr>
<td><strong>Phase 1: Demonstrations in the Los Angeles Basin (Los Angeles and Orange counties)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DEADLINE TO SUBMIT APPLICATIONS</strong></td>
<td><strong>October 25, 2016 by 5:00 p.m.</strong></td>
</tr>
<tr>
<td>Post NOPA</td>
<td>December 2016</td>
</tr>
<tr>
<td>Anticipated Energy Commission Business Meeting Date</td>
<td>February 2017</td>
</tr>
<tr>
<td>Anticipated Agreement Start Date</td>
<td>March 2017</td>
</tr>
</tbody>
</table>
# Key Dates (cont’d)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Action Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 2: Groups not fully funded</strong></td>
<td></td>
</tr>
<tr>
<td>Notice for Start of Phase 2</td>
<td>December 2016</td>
</tr>
<tr>
<td><strong>DEADLINE TO SUBMIT APPLICATIONS</strong></td>
<td><strong>January 24, 2017 by 5:00 p.m.</strong></td>
</tr>
<tr>
<td>Post NOPA</td>
<td>February 2017</td>
</tr>
<tr>
<td>Anticipated Energy Commission Business Meeting Date</td>
<td>April 2017</td>
</tr>
<tr>
<td>Anticipated Agreement Start Date</td>
<td>June 2017</td>
</tr>
<tr>
<td><strong>Phase 3 (if funds remain from Phase 2): All Groups</strong></td>
<td></td>
</tr>
<tr>
<td>Notice for Start of Phase 3</td>
<td>February 2017</td>
</tr>
<tr>
<td><strong>DEADLINE TO SUBMIT APPLICATIONS</strong></td>
<td><strong>March 28, 2017 by 5:00 p.m.</strong></td>
</tr>
<tr>
<td>Post NOPA</td>
<td>April 2017</td>
</tr>
<tr>
<td>Anticipated Energy Commission Business Meeting Date</td>
<td>June 2017</td>
</tr>
<tr>
<td>Anticipated Agreement Start Date</td>
<td>July 2017</td>
</tr>
</tbody>
</table>
Eligible Applicants

• This is an open solicitation for public and private entities with the exception of publicly-owned utilities.

• Business entities are required to register with the California Secretary of State and be in good standing in order to enter into an agreement with the Energy Commission. http://www.sos.ca.gov

• All applicants must agree to the EPIC terms and conditions. http://www.energy.ca.gov/research/contractors.html
Eligible Applicants

• Only one award per **entity** for this solicitation
  
  o **Entity**: a company (as registered with the Secretary of State’s Office), each campus of the Regents of the University of California, California State University, or public/non-profit college, each local government (including all departments), each state government department, a research organization (including all subsidiaries), each national laboratory, and each branch of the military

• If multiple applications are received from the same entity for the same or different groups, only the highest-scoring proposal will be selected. The intent is to provide opportunities for multiple awardees.

• Primes **cannot be subcontractors on other teams**
Pre-Commercial Technologies to be considered

- Advanced lighting and controls, including daylighting
- Advanced heating, ventilation and air conditioning systems, including non-compressor technologies and controls
- Advanced plug load equipment and controls
- Technologies responsive to grid events, demand response and rate signals
- Integration of multiple technologies with system level approaches, such as through building management systems, energy efficiency and demand response, advanced electric heat pump water heating with combined opportunities for space heating and cooling, continuous commissioning and data support for pay for performance approaches in conjunction with technological installations.
### Funding Groups of Existing Buildings

<table>
<thead>
<tr>
<th>Technology Demonstration and Deployment</th>
<th>Amount Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1: Government Buildings and Facilities</td>
<td>Up to $5,000,000</td>
</tr>
<tr>
<td>Group 2: Colleges, Universities, K-12 Schools, and associated facilities</td>
<td>Up to $5,000,000</td>
</tr>
<tr>
<td>Group 3: Privately Owned Buildings and Associated Facilities</td>
<td>Up to $5,000,000</td>
</tr>
<tr>
<td>Group 4: Military Facilities</td>
<td>Up to $5,000,000</td>
</tr>
</tbody>
</table>
Group 1: Government Buildings and Facilities

Demonstrations in State, city, county-owned, and special district facilities (includes offices, jails, hospitals, and associated facilities)

Minimum Award: $2,500,000
Maximum Award: $5,000,000
Group 2: Colleges, Universities, K-12 schools, and associated facilities

Demonstrations in colleges and universities, and primary and secondary schools (e.g. kindergarten to 12th grade) including associated administrative, special education facilities and dormitories

Minimum Award: $2,500,000
Maximum Award: $5,000,000
Group 3: Privately Owned Buildings and Facilities

Demonstrations in private or non-profit buildings, such as hospitals, offices, retail facilities, grocery stores, data centers, and hotels

Minimum Award: $2,500,000
Maximum Award: $5,000,000
Group 4: Military Facilities

Demonstrations in buildings on military bases

Minimum Award: $2,500,000
Maximum Award: $5,000,000
Requirements for all Groups

Note: For Phase 1 the requirement will be on installations in the SCE service territory in LA and Orange counties

- Identify a minimum of 100,000 square feet of conditioned space or 5 buildings with a minimum of 15,000 square feet of conditioned space each for installation of the demonstration project
- Include on-going monitoring and verification as indicated in Section II.B.5 (Measurement and Verification Plan).
- Reduce a facility electricity use (kWh) by at least 20 percent of current use as a result of installing the advanced pre-commercial energy efficiency technologies or
- Reduce on-site electricity use (kWh) by at least 20 percent along with permanent load reductions or flexibility to provide “anytime” load reductions when combined with energy efficiency and load controlling technologies
### Application Requirements

Every Applicant must complete and include the following:

<table>
<thead>
<tr>
<th>1. Application Form</th>
<th>7. Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Executive Summary <em>(two pages)</em></td>
<td>8. CEQA Compliance Form</td>
</tr>
<tr>
<td>3. Fact Sheet <em>(two pages)</em></td>
<td>9. References and Work Product <em>(one page for each reference; two pages for project descriptions)</em></td>
</tr>
<tr>
<td>4. Project Narrative <em>(twenty pages)</em></td>
<td>10. Contact List</td>
</tr>
<tr>
<td>5. Project Team <em>(two pages for each resume)</em></td>
<td>11. Commitment and Support Letters <em>(two pages, excluding the cover page)</em></td>
</tr>
<tr>
<td>6. Scope of Work and Schedule</td>
<td></td>
</tr>
</tbody>
</table>
Project Narrative (Attachment 4)

• Project Narrative form follows the Proposal Scoring Criteria
• Complete the form by providing a detailed response addressing the following areas:
  1. Technical Merit and Need
  2. Technical Approach
     – See Section II.B.3 for more details
  3. Impacts and Benefits for California IOU Ratepayers
  4. Team Qualifications, Capabilities and Resources
  5. Budget and Cost Effectiveness
  6. EPIC Funds Spent in California
  7. Ratio of Direct Labor and Fringe Benefits to Loaded Rates
  8. Match Funding
  9. Disadvantaged Communities (Optional)

• Provide sufficient detail so that reviewers will be able to evaluate the proposal against each of the scoring criteria.
Scope of Work (Attachment 6)

- Identifies the tasks required to complete the project. It includes a project schedule that lists all products, meetings, and due dates.
- All tasks in black are mandatory – please do not revise
  - Task 1: General Project Tasks
  - Other mandatory tasks: Evaluation of Project Benefits, Technology/Knowledge Transfer Activities, Production Readiness Plan (applicable to projects with technologies/products that may be commercialized)
- Technical tasks begin with Task 2:
  - The “Recipient Shall” section of each technical task must indicate specific actions to be performed (should be major items).
  - “Products” are documents, plans and reports (tangible items that can be submitted to the Energy Commission).
  - “Products” are not equipment and other items that cannot be delivered and stored at the Energy Commission.
Budget (Attachment 7)

Every Applicant must complete and include the budget forms for its team (Prime and Major Subs)

✓ Category Budget
✓ Direct Labor
✓ Fringe Benefits
✓ Travel
✓ Equipment
✓ Materials and Misc.
✓ Subcontracts
✓ Indirect Costs and Profit

The Applicant must submit information on all of the Attachment 7 budget forms, and this will be deemed the equivalent of a formal Cost Application.

Don’t delete rows, columns or worksheets. Leave unused cells blank. You may hide unused rows.
Commitment and Support Letters (Attachment 11)

Commitment letters are required for:

- **Match funding.** Commitment letters must be signed by each representative of the entity or individual that is committing to providing match funding. Letter must: (1) identify the source(s) of the funds; and (2) guarantee the availability of the funds for the project. **At least 25% of CEC funded amount in match funding required for all the groups.**

- **Project site.** Commitment letters to be signed by an authorized representative of each proposed demonstration site(s).

- **Project partner.** Commitment letters for those making contributions other than match funding or testing/demo site. Letter must be signed by an authorized representative and: (1) identifies how the partner will contribute to the project; (2) commits to making the contribution; and (3) is not receiving Commission funds.

All applicants should include at least one support letter.
Application Evaluation

• Consists of Two Parts
  ➢ Part 1 –Screening (Section IV.E)
  ➢ Part 2 –Scoring (Section IV.F)
Screening

Application Screening Process  (Section IV.E of Application Manual)

1. Energy Commission staff screens applications per criteria listed in Section IV.E of Application Manual

2. Criteria is evaluated on a pass/fail basis.
   ✓ Applicants must pass all screening criteria or the applicant will be disqualified
# Scoring

<table>
<thead>
<tr>
<th>% of Possible Points</th>
<th>Interpretation</th>
<th>Explanation for Percentage Points</th>
</tr>
</thead>
</table>
| 0%                   | Not Responsive       | • The response does not include or fails to address the criteria.  
                          • The omission(s), flaw(s), or defect(s) are significant and unacceptable.                                                                                       |
| 10-30%               | Minimally Responsive | • The response minimally addresses the criteria.  
                          • The omission(s), flaw(s), or defect(s) are significant and unacceptable.                                                                                     |
| 40-60%               | Inadequate           | • The response addresses the criteria.  
                          • There are one or more omissions, flaws, or defects or the criteria are addressed in a limited way that results in a low degree of confidence in the proposed solution. |
| 70%                  | Adequate             | • The response adequately addresses the criteria.  
                          • Any omission(s), flaw(s), or defect(s) are inconsequential and acceptable.                                                                                      |
| 80%                  | Good                 | • The response fully addresses the requirements being scored with a good degree of confidence in the applicant’s response or proposed solution.  
                          • There are no identified omission(s), flaw(s), or defect(s). Any identified weaknesses are minimal, inconsequential, and acceptable.                                  |
| 90%                  | Excellent            | • The response fully addresses the criteria with a high degree of confidence in the applicant’s response or proposed solution.  
                          • The applicant offers one or more enhancing features, methods, or approaches that exceed basic expectations.                                                     |
| 100%                 | Exceptional          | • All requirements are addressed with the highest degree of confidence in the applicant’s response or proposed solution.  
                          • The response exceeds the requirements in providing multiple enhancing features, a creative approach, or an exceptional solution.                                  |
How will my application be scored?

- Evaluation Committee applies the scoring scale to the scoring criteria
- A minimum passing score of 70% is required for criteria 1 to 4—equivalent to a score of 49 in order for to be considered for funding, and
- A total minimum passing score of 70 out of 100 points is needed for criteria 1 to 7
- Applicants must review the Evaluation and Award Process section of the solicitation and ensure that their application provides a clear and complete response to each scoring criteria in the project narrative.

### Scoring Criteria

<table>
<thead>
<tr>
<th>Scoring Criteria</th>
<th>Maximum Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technical Merit and Need</td>
<td>20</td>
</tr>
<tr>
<td>2. Technical Approach</td>
<td>20</td>
</tr>
<tr>
<td>3. Impacts and Benefits to California IOU Ratepayers</td>
<td>20</td>
</tr>
<tr>
<td>4. Team Qualifications, Capabilities &amp; Resources</td>
<td>10</td>
</tr>
<tr>
<td>5. Budget &amp; Cost Effectiveness</td>
<td>10</td>
</tr>
<tr>
<td>6. EPIC Funds Spent in California</td>
<td>15</td>
</tr>
<tr>
<td>7. Ratio of Direct Labor and Fringe Benefit Rates to Loaded Labor Rates</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td><strong>Minimum points to pass</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>
Project Match Funds (Criteria 8)

- **Match funding is required for all groups in the amount of at least 25% of requested Energy Commission project funds.** Applicants that provide more will receive additional points.
- See section I.F.2 and IV.F/Scoring Criteria 8 of Application Manual for details on Match Funding Requirements.
Disadvantaged Communities (Criteria 9)

• Additional points will be provided to projects that meet the following requirements:
  1. All test or demonstration sites located in disadvantaged communities, and
  2. Justification is provided on how the project will benefit low income residents within the disadvantaged community.
  3. CalEnviroScreen Website will be used to determine eligible disadvantaged communities.

• Please refer to Section IV.F/Scoring Criteria 9 of Application Manual for additional details.
Disadvantaged Communities

Potential Grounds for Rejection

The Energy Commission reserves the right to reject an application or cancel an award for the following reasons:

- Application contains false or misleading statements
- Application is intended to mislead the State in its evaluation
- The application does not comply with the solicitation requirements
- The applicant is a business entity that is not in good standing with the California Secretary of State
- Applicant is not in compliance with royalty provisions from previous Energy Commission awards
Potential Grounds for Rejection Continued…

✓ Applicant has received unsatisfactory evaluations from the Energy Commission or another California state agency

✓ Applicant has not demonstrated that it has the financial capability to complete the project

✓ The application is not submitted in the format specified in Part III, Sections A, B, and C of the solicitation

✓ The project date extends past the anticipated agreement end date specified in the “Key Activities Schedule” in Part I

✓ The applicant fails to meet CEQA compliance by the encumbrance deadline
CEQA Compliance

• This solicitation requires that all CEQA compliance documents be complete by the encumbrance deadline.

• CEQA documents submitted with application (with Attachment 8) must show progress towards achieving CEQA compliance. Progress will be considered in scoring phase under Criteria 1.

• See Section I.D, III.D.4 and III.D.8 of Application Manual for more information.
GFO Application Requirements
(for Electronic Submission)

• Preferred method of Delivery is the Energy Commission Grant Solicitation System, available at: https://gss.energy.ca.gov/.
  – Electronic files must be in Microsoft Word (.doc format) and Excel formats, unless originally provided in solicitation in another format.

• Attachments requiring signatures may be scanned and submitted in PDF format.

• Completed Budget Forms (Attachment 7) must be in Excel format.

• First time users must register as a new user to access system.

• Please submit proposal to the correct Phase (1, 2, or 3)
GFO Application Requirements
(for Hard Copy Submittal)

• Submit Applications with all attachments in the order specified by the due date and time listed in Section I.G of the manual.

• Application documents should meet formatting requirements, page limit recommendations, and number of copies specified in Section III.A.
  – **One** hard copy and **one** electronic copy.
Solicitation Documents

• The latest solicitation related documents may be found here, including addendums, responses to questions and answers and the sign up sheet: http://www.energy.ca.gov/contracts/GFO-16-304
Find Partners via LinkedIn

The Energy Commission has created a user-driven LinkedIn group page to help potential applicants connect, collaborate and partner on proposals for funding opportunities.

Join the “California Energy Commission Networking Hub” using:

- The LinkedIn Search Box
- URL: bit.ly/CalEnergyNetwork

Then, use the ‘About this Group’ section on the LinkedIn group page to find funding opportunity specific subgroups.
Next Pre-bid Workshop

Date and time: August 17, 2016 at 10:00 a.m.

Location: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
Auditorium

• WebEx:
  o Meeting Number: 922 747 7547
  o Meeting Password: meeting@10
  o Topic: Emerging Energy Efficient Technology Demonstrations Pre-
    Application Workshop
Questions and Answers

• Please send all GFO related questions in written form to:

Rachel Grant Kiley
Commission Agreement Officer
Rachel.Grant-Kiley@energy.ca.gov

Deadline to submit questions is
5:00 PM PDT, August 23, 2016!