



CALIFORNIA ENERGY COMMISSION

# **Pre-Application Workshop**

## **EPIC Building Efficiency Applied Research and Development Grant Solicitation**

**Developing a Portfolio of Advanced Efficiency Solutions: Technologies and  
Approaches for More Affordable and Comfortable Buildings**

**PON-13-301**

Energy Efficiency Research Office  
Energy Research and Development Division  
California Energy Commission  
April 15, 2014



# Agenda

Time	Topic
1:00 pm	Welcome and Introductions <ul style="list-style-type: none"><li>• Housekeeping</li><li>• PON Addenda</li><li>• Solicitation Purpose, Goals, Background, Policy Drivers</li><li>• Eligible Applicants</li><li>• Key Dates</li></ul>
1:15 pm	Research Categories and Groups
1:30 pm	Submission Requirements: Two-stage Award Process Abstract Proposal <ul style="list-style-type: none"><li>• Match Funds</li><li>• Grounds for Rejection</li></ul>
1:45 pm	Questions and Answers



## Housekeeping

- In case of emergency
- Facilities
- Updates on Solicitation Documents and today's presentation can be found at:

[www.energy.ca.gov/contracts/pier.html#PON-13-301](http://www.energy.ca.gov/contracts/pier.html#PON-13-301)



## Main Addenda Items

### 1. Changes to the Solicitation (PON) Manual

- Extended due date for questions to April 17<sup>th</sup>
- MS Word Version 2007 or later version acceptable (.docx)
- Number of Abstracts per Funding Group (A,B, or C)
  - Deleted limitation of one abstract or proposal per Funding Group (A, B, or C).
- Profit – not for the prime applicants, but yes for subcontractors



## Addenda (continued)

### 2. Changes to Attachment 1

- Delete previous certifications 3 and 4 on page 3
- Add new certifications 3 and 4 related to terms and conditions

### 3. Changes to Attachment 7 (Budget Workbook)

- Modified instructions
- Profit is added for subcontractors on the appropriate worksheets
- Previous tabs 7 and 8 were deleted. A new tab 7 is now used to calculate the overhead score (values pulled from the entries on B-2)



## Purpose

- Fund applied research and development projects that develop next generation end-use efficiency technologies and strategies for:
  - Existing and new construction,
  - Residential (multi- and single-family),
  - Commercial buildings,
- Funded projects must benefit California IOU electric ratepayers
- Funded projects must emphasize emerging energy efficiency technologies\* and improvements to processes and operations.

\* Pre-commercial technologies and approaches at applied lab-level or pilot level stages 6



## Goals

- Advance energy efficiency technologies that result in affordable, comfortable, and energy efficient buildings
- Reduce energy consumption and greenhouse gas (GHG) emissions while maintaining or increasing productivity
- Research and develop energy efficient technologies that advance building energy efficiency codes and standards (Group A)
- Research direct current (DC) applications for future Zero Net Energy (ZNE) buildings (Group B)
- Demonstrate and analyze roof deck insulation for new residential ZNE buildings (Group C)



## 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 the ratepayers of three electric investor-owned utilities\*
- EPIC funds clean energy technology projects that 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 per year with 80% administered by the California Energy Commission.

\* Pacific Gas and Electric Co., San Diego Gas and Electric Co., and Southern California Edison



## Policy Drivers for Building Efficiency RD&D

- Laws and Regulations:
  - AB 32, AB 758, AB 1109, SB 96
  - Appliance Efficiency Regulations, California Energy Code
- Policies/Plans
  - Governor Brown's Clean Energy Jobs Plan
  - California Energy Action Plan
  - Integrated Energy Policy Report
  - CPUC Commission, Energy Efficiency Strategic Plan



## Eligible Applicants

- This is an open solicitation for public and private entities.
- Business applicants 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>
- Applicants must propose a team that has demonstrated the ability to successfully complete similar research or demonstration projects.



# Key Dates

Activity	Action Date
✓ Solicitation Release	March 21, 2014
Pre-Application Workshop	April 15, 2014
<b><u>DEADLINE FOR WRITTEN QUESTIONS</u></b>	<b><u>April 17, 2014 by 5:00 p.m.</u></b>
Post Questions and Answers to Website	May 6, 2014
<b><u>DEADLINE TO SUBMIT ABSTRACTS (Stage 1)</u></b>	<b><u>May 15, 2014 by 3:00 p.m.</u></b>
Posting Stage 1 Results	June 13, 2014
<b><u>DEADLINE TO SUBMIT PROPOSALS (Stage 2)</u></b>	<b><u>July 31, 2014 by 3:00 p.m.</u></b>
Post NOPA	September 30, 2014
Anticipated Energy Commission Business Meeting Date	December 10, 2014
Anticipated Agreement Start Date	February 1, 2015
Agreement Termination Date	March 31, 2019



## Research Categories

- Up to \$25.0 million available in the following groups
- Funding amounts may be moved among the groups

<b>Groups</b>	<b>Amount Available</b>
<b>A: Building Energy Efficiency Technology and Codes and Standards Advancement</b>	Up to \$22,000,000
<b>B: Direct Current Applications for Future ZNE buildings</b>	Up to \$1,000,000
<b>C: Roof Deck Insulation Analysis for New Residential ZNE buildings</b>	Up to \$2,000,000



## Groups

- Each group will be evaluated and scored separately
- Applicants must submit a separate application for each group
- If projects that fall within one funding group are distinct and unrelated, applicants must submit a separate application for each project
- Examples:
  - Related projects: advanced lighting projects and controls—submit one application
  - Unrelated projects: advanced commercial refrigeration and residential lighting—submit two applications



## **Group A: Building Energy Efficiency Technology and Codes and Standards Advancement**

**Minimum Award: \$1 million**

**Maximum Award: \$3 million**

### **Examples of Potential Projects:**

- Lighting Technology, Controls, and Systems
- Heating, Ventilation and Air Conditioning (HVAC) Systems, Controls, and Diagnostics
- Building Envelope
- Plug Load Efficiency

Refer to Attachment 14



## **Group B: Direct Current Applications for Future ZNE buildings**

**Minimum Award: \$500,000**

**Maximum Award: \$1 million**

### **Examples of Potential Projects:**

- Determine the technical and economic feasibility of DC-powered buildings, subdivisions, communities, and microgrids
- Identify the most technically feasible and cost-effective applications for DC technology
- Identify barriers and needed technological advancements
- Determine needed DC infrastructure and development, and their costs
- Identify potential affects of increased DC use on building codes and standards
- If a hybrid system (both AC and DC buses) is better suited for most applications and describe the most practical hybrid system that would benefit ratepayers
- Determine which loads are best left on an AC bus

Refer to Attachment 14



## **Group C: Roof Deck Insulation Analysis for New Residential ZNE buildings**

**Minimum Award: \$500,000**

**Maximum Award: \$2.0 million**

### **Examples of Potential Projects:**

- Develop and demonstrate options for above (min. R6) or below-roof deck (min. R15) insulation.
- Projects may involve the development of innovative advanced energy efficiency systems in order to increase their ability to comply with future energy codes and standards.

Refer to Attachment 14



# Submission Requirements

- **Two Stage-Award Process**
  - ❖ **Stage 1: Abstract**
    - ✓ Limit each abstract to **eight pages**
    - ✓ Pass/fail basis using the Stage 1 screening criteria listed on pages 23-24, **Section E** of the Solicitation Manual
  - ❖ **Stage 2: Formal Proposal**
    - ✓ Limit proposals to a maximum length of **60 pages**
    - ✓ Meet the criteria of **Section F** (Proposal Screening ) and **Section G** (Proposal Scoring ).



## Abstract Requirements

- **Application Form (Attachment 1)**
  - ❖ (no page limit)
- **Abstract Project Summary (Attachment 12)**
  - ❖ 8 page limit
- **Support Letters (Attachment 11)**
  - ❖ 2 pages per letter, excluding cover page



## Abstract Requirements (Attachment 12)

- **Project Summary**
  - Describes the purpose and scope of the proposed project, and:
  - Addresses technical and implementation issues,
  - Justifies the need for EPIC funding,
  - Explains how the project is unique and not duplicative of existing technology
  - Describes how the project will:
    - (1) provide California electricity IOU ratepayers with greater reliability, lower energy costs, and/or increased safety; and
    - (2) lead to technological advancements and breakthroughs that overcome barriers to achieving the state's statutory energy goals,
  - Contains sufficient scientific detail that the project is supported by major laws of physics (e.g., law of gravity, conservation of mass and energy, and laws of thermodynamics).
- **Support letters** are required for projects in all groups (Attachment 11)



## How Will My Abstract be Evaluated?

### Abstract Screening (page 23)

- 1. Must pass all 12 requirements or be disqualified**
- 2. Highlights of a few :**
  - **#2: Abstract addresses only one Funding Group (A, B, C) and at least one funding initiative in the Application Form**
  - **#3: Abstract addresses only projects within each funding group that are related**
  - **#4: Minimum and maximum amounts**
  - **#8: Project completion date**
  - **#9: Pilot test projects in IOU territory**
  - **#11: Abstract format**
  - **#12: Support Letters**

### Reasons for Failing:

- ✓ **Application not submitted by the specified due date and time**
- ✓ **Application not signed**
- ✓ **Applicant did not address at least one of the eligible funding areas**
- ✓ **Applicant addresses multiple projects in one abstract that are unrelated**
- ✓ **Requested funding is outside of the specified minimum/maximum range**
- ✓ **Application does not follow specified format**
- ✓ **Project completion date beyond the specified agreement end date**
- ✓ **Proposal contains confidential material**



# Proposal Requirements

- Consists of Two Parts
  - Part 1 – Proposal Screening (Section F, page 25)
  - Part 2 – Proposal Scoring (Section G, pages 27-30)



## Proposal Requirements (continued)

Every Applicant must complete and include the following:

1. Application Form	7. Budget
2. Executive Summary	8. CEQA Compliance Form
3. Fact Sheet	9. References and Work Product
4. Project Narrative	10. Contact List
5. Project Team	11. Commitment Letters
6. Scope of Work	



## Project Narrative (Attachment 4)

- Project Narrative form follows the Stage 2, Part 2, Proposal Scoring Criteria
- Include a detailed description of the proposed project(s) and respond to the information requested in each of the following areas:
  1. Technical Merit and Need
  2. Technical Approach
  3. Impacts and Benefits for California IOU Ratepayers
  4. Team Qualifications, Capabilities and Resources
  5. Budget and Cost Effectiveness
  6. Funds Spent in California
  7. Ratio of Unloaded Labor Rates to Loaded Labor Rates
  8. Match Funding (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)

- Ensure that the problem/Solution Statement and Goals and Objectives are consistent with the Project Narrative
- All task in black are mandatory and do not revise
  - Task 1: General Project Tasks
  - Task TBD-1 Evaluation of Project Benefits
  - Task TBD-2 Technology/KnowledgeTransfer Activites
  - Task TBD-3 Production Readiness Plan-only applicable to agreements that fund the development of proucts that may be commercialized
- Task 2 are the technical task
  - Indicate specific tasks in the “Recipient Shall” section (these should be major items)
  - “Products” are documents, plans and reports (tangible items that can be submitted to the CAM)
  - “Products” are not equipment and other items that cannot be delivered and stored at the Energy Commission.



## Budget (Attachment 7)

### Please use updated forms

**Every Applicant must complete and include the budget forms for its team**

- ✓ Task Summary - Att B-1
- ✓ Category Summary - Att B-2 (amended)
- ✓ Prime Labor Rates - Att B-3
- ✓ Labor Rates for each Subcontractor - Att B-3a-z
- ✓ Prime Non-Labor Rates - Att B-4
- ✓ Non-Labor Rates for each Subcontractor - Att B-4 a-z (amended)
- ✓ Direct Operating Expenses – Att B-5
- ✓ Match Funding – Att B-6
- ✓ Rates Summary - Att B-7 (for evaluation purposes) (revised)

Don't delete sheets or rows;  
use the hide/expand function

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



## How will my Proposal be Evaluated? Stage 2 Proposal Screening

### Application Screening Process (page 25)

1. Energy Commission staff screens applications per criteria in the solicitation for Stage 2.
2. Criteria is evaluated on a pass/fail basis.
  - ✓ Applicants must pass all screening criteria or the applicant will be disqualified
  - ✓ Applicants must review the Evaluation and Award Process section of the solicitation and ensure that the Project Narrative provides a clear and complete response to each screening criteria.

### Reasons for Failing Stage 2 Screening

- ✓ Application not submitted by the specified due date and time
- ✓ Application not signed
- ✓ Applicant did not address at least one of the eligible funding areas
- ✓ Requested funding is outside of the specified minimum/maximum range
- ✓ Application does not follow specified format
- ✓ Project completion date beyond the specified agreement end date
- ✓ Proposal contains confidential material



## What is the technical scoring scale?

% of Possible Points	Interpretation	Explanation for Percentage Points
0%	Not Responsive	<ul style="list-style-type: none"> <li>The response does not include or fails to address the criteria.</li> <li>The omission(s), flaw(s), or defects( )are significant and unacceptable.</li> </ul>
10-30%	Minimally Responsive	<ul style="list-style-type: none"> <li>The response minimally addresses the criteria.</li> <li>The omission(s), flaw(s), or defect(s) are significant and unacceptable.</li> </ul>
40-60%	Inadequate	<ul style="list-style-type: none"> <li>The response addresses the criteria.</li> <li>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.</li> </ul>
70%	Adequate	<ul style="list-style-type: none"> <li>The response adequately addresses the criteria.</li> <li>Any omission(s), flaw(s), or defect(s) are inconsequential and acceptable.</li> </ul>
80%	Good	<ul style="list-style-type: none"> <li>The response fully addresses the requirements being scored with a good degree of confidence in the applicant's response or proposed solution.</li> <li>There are no identified omission(s), flaw(s), or defect(s). Any identified weaknesses are minimal, inconsequential, and acceptable.</li> </ul>
90%	Excellent	<ul style="list-style-type: none"> <li>The response fully addresses the criteria with a high degree of confidence in the applicant's response or proposed solution.</li> <li>The applicant offers one or more enhancing features, methods, or approaches that exceed basic expectations.</li> </ul>
100%	Exceptional	<ul style="list-style-type: none"> <li>All requirements are addressed with the highest degree of confidence in the applicant's response or proposed solution.</li> <li>The response exceeds the requirements in providing multiple enhancing features, a creative approach, or an exceptional solution.</li> </ul>



## How will my application be evaluated?

- 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 all 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 (page 27-30)	Maximum Points
1. Technical Merit and Need	20
2. Technical Approach	20
3. Impacts and Benefits to California IOU Ratepayers	20
4. Team Qualifications, Capabilities & Resources	10
5. Budget Cost Effectiveness	10
6. Funds Spent in California	15
7. Ratio of Direct Labor and Fringe Benefit Rates to Loaded Labor Rates	5
Total	100
<b>Minimum points to pass</b>	<b>70</b>



## Project Match Funds (Criterion 8)

- Match funding is not required
- Applications with match funds will receive additional points during the scoring phase; points applied only for those that achieve a minimum score of 70.
- Match funding includes cash in hand, equipment, materials, information technology services, travel, subcontractor costs, contractor in-kind labor, advanced practice costs.
  - Refer to Section 1, item E of the Application manual, pages 6-7
  - Advanced practice costs means the incremental cost difference between standard and advanced practices.
- Match funding sources include those from the prime contractor, subcontractors, and pilot test sites (e.g., test site staff services).
- Commitment letters are required from all match fund contributors (see requirements in Attachment 11)



## Grounds for Rejection

- An application may be rejected by the Energy Commission 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 application contains confidential information
  - ✓ Applicant is not in compliance with royalty provisions from previous Energy Commission awards
  - ✓ Applicant has received unsatisfactory evaluations from the Energy Commission or another California state agency
  - ✓ Applicant has not demonstrated financial capability to complete the project
  - ✓ Applicant is a business that is not in good standing with the California Secretary of State



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Post NOPA	September 30, 2014
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Agreement Termination Date	March 31, 2019



## Other Information

- **Updates on Solicitation Documents and today's presentation:**  
[www.energy.ca.gov/contracts/pier.html#PON-13-301](http://www.energy.ca.gov/contracts/pier.html#PON-13-301)
- **Sign up for the Listserver by selecting "Opportunity:"**  
[www.energy.ca.gov/listservers/](http://www.energy.ca.gov/listservers/)
- **Information on EPIC:**  
[www.energy.ca.gov/research/epic/index.html](http://www.energy.ca.gov/research/epic/index.html)
- **Information on other EPIC solicitations:**  
[www.energy.ca.gov/contracts/epic.html](http://www.energy.ca.gov/contracts/epic.html)



## Questions and Answers

- Please send all PON related questions in written form to:

Angela Hockaday  
Commission Agreement Officer  
[angela.hockaday@energy.ca.gov](mailto:angela.hockaday@energy.ca.gov)

**Deadline to submit questions is  
5:00 PM PDT, April 17, 2014!**