



CALIFORNIA ENERGY COMMISSION

Pre-Application Workshop

2016 Natural Gas Energy Efficiency Research Grants for Residential and Commercial Buildings

GFO-16-502

Energy Efficiency Research Office
Energy Research and Development Division
California Energy Commission
July 7, 2016



Agenda

Time	Topic
1:30 pm	Welcome <ul style="list-style-type: none">• Housekeeping• Background, Policy Drivers• Solicitation Purpose• Key Dates• Eligible Applicants
1:45 pm	Research Groups
2:00 pm	Application Requirements: <ul style="list-style-type: none">• Attachments Application Evaluation <ul style="list-style-type: none">• Screening• Scoring• Electronic Submission
2:30 pm	Questions and Answers



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-16-502>



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

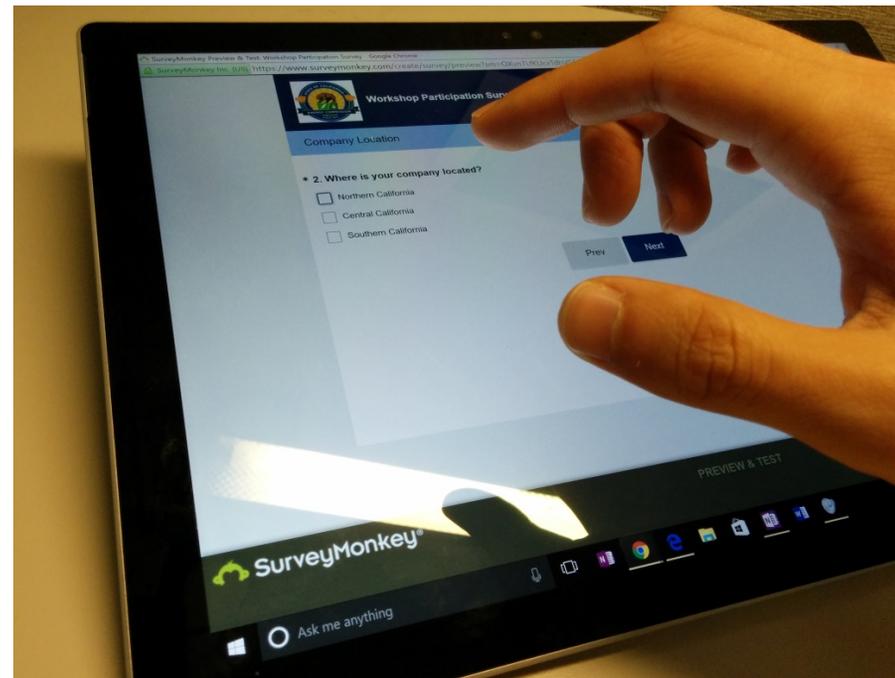
- Online SurveyMonkey for WebEx Participants:

[https://](https://www.surveymonkey.com/r/CEC-07-07-2016)

[www.surveymonkey.com/r/](https://www.surveymonkey.com/r/CEC-07-07-2016)

[CEC-07-07-2016](https://www.surveymonkey.com/r/CEC-07-07-2016)

Thanks for your time!





Background

- The Natural Gas program is funded by a ratepayer surcharge established by the CPUC
- The purpose of the Natural Gas Program is to benefit natural gas ratepayers of three investor-owned utilities (PG&E, SDG&E, and Southern California Gas)
- Natural Gas projects:
 - Focus on Energy Efficiency, Renewables, conservation and the environment
 - Support State Energy Policy
 - Benefits to the public
 - Consider opportunities for collaboration and cofunding with other entities
- 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 administered by the California Energy Commission total \$24 million.



Policy Drivers for Building Efficiency RD&D

- AB 32 (Global Warming Solutions Act of 2006)
- AB 758 (Energy Efficiency Existing Buildings)
- AB 802 (Statewide building energy use benchmark)
- SB 350 (Double efficiency by 2030)
- CPUC Strategic Energy Efficiency Strategic Plan
 - All new residential/commercial construction ZNE by 2020/2030
- Title 20 and Title 24 Energy Efficiency Standards



Solicitation Purpose

To conduct research, development and demonstration projects that focus on improving the efficiency of natural gas appliances and mechanical systems.

The overall goals are to increase energy efficiency by at least 10 percent from existing systems, reduce system installation and operating cost and minimize air emissions.

Energy efficiency research groups:

- Group A: Demonstrations of advanced water heating systems and distribution systems
- Group B: Demonstrations of advanced heating, ventilation, and air conditioning (HVAC) technologies and building envelopes
- Group C: Demonstrations of Integrated natural gas systems or equipment that can serve multiple purposes.
- Group D: Applied Research Strategies for Appliances, Zero Net Energy Buildings, and Codes and Standards



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 and requires quick starting demonstration projects (6 months or less);
 - IOU territories in Los Angeles County and Orange County
 - Group D will not be included in this phase.
- Phase 2 will include all groups and can be in any IOU territory; and
- Phase 3 will be similar to Phase 2 if sufficient funding remains.



Key Dates

Activity	Action Date
✓ Solicitation Release	June 29, 2016
Pre-Application Workshop	July 7, 2016
<u>DEADLINE FOR WRITTEN QUESTIONS</u>	<u>July 12, 2016 by 5:00 p.m.</u>
Post Questions and Answers to Website	Week of July 25, 2016
Phase 1: Demonstrations in the Los Angeles Basin, Groups A, B, and C	
<u>DEADLINE TO SUBMIT APPLICATIONS</u>	<u>August 12, 2016 by 5:00 p.m.</u>
Post NOPA	Week of August 29, 2016
Anticipated Energy Commission Business Meeting Date	November 15, 2016
Anticipated Agreement Start Date	December, 2016



Key Dates (cont'd)

Activity	Action Date
Phase 2: All Groups	
Notice for Start of Phase 2	Week of September 5, 2016
<u>DEADLINE TO SUBMIT APPLICATIONS</u>	<u>September 30, 2016 by 5:00 p.m.</u>
Post NOPA	November 2016
Anticipated Energy Commission Business Meeting Date	February 2017
Anticipated Agreement Start Date	March 2017
Phase 3 (if funds remain from Phase 2): All Groups	
Notice for Start of Phase 3	Week following Phase 2 NOPA
<u>DEADLINE TO SUBMIT APPLICATIONS</u>	<u>January 17, 2017 by 5:00 p.m.</u>
Post NOPA	February 2017
Anticipated Energy Commission Business Meeting Date	May 2017
Anticipated Agreement Start Date	June 2017



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 Natural Gas Program terms and conditions located at:
<http://www.energy.ca.gov/contracts/pier.html#terms>



Research Groups	Amount Available
Technology Demonstration and Deployment	
A: Advanced Water Heating System Demonstrations	Up to \$2,370,000
B: Advanced HVAC and Building Envelope Demonstrations	Up to \$2,000,000
C: Integrated Natural Gas System Demonstrations	Up to \$1,000,000
Applied Research and Development	
D: Applied Research Strategies for Appliances, Zero Net Energy Buildings, and Codes and Standards	Up to \$250,000



Group A: Technology Demonstration and Deployment – Advanced Water Heating System Demonstrations

Examples: Advanced solar water heating, high efficiency/low NOx water heating, hot water distribution

Minimum Award: \$750,000

Maximum Award: \$1.5 million

Applications

Residential, commercial and multifamily buildings



Group B: Technology Demonstration and Deployment – Advanced HVAC and Building Envelope Demonstrations

Examples: thermal cooling systems (includes solar), air distribution design approaches, building envelopes

Minimum Award: \$750,000

Maximum Award: \$1.5 million

Applications

Residential, commercial, and multifamily buildings



Group C: Technology Demonstration and Deployment – Integrated Natural Gas System Demonstrations

Examples: Integrated technologies (space/process/water heating), next generation energy management

Minimum Award: \$500,000

Maximum Award: \$1 million

Applications

Residential, commercial, and multifamily buildings



Requirements for Groups A, B & C

Note: For Phase 1 the emphasis will be on installations in the LA Basin and can become operational quickly (6 Months)

- Identify a demonstration location
- Show actual energy reductions due to on-site energy efficiency improvements
- Provide test data to show that pre-commercial technology is beyond pilot scale
 - Number of hours testing for residential: 250
 - Number of hours testing for commercial: 500
- Investigate and document end-user behavior
- Include ongoing M&V for a period of at least 12 months
- Identify the critical market players



Group D: Applied Research and Development - Applied Research Strategies for Appliances, Zero Net Energy Buildings, and Codes and Standards

**Examples: Implications of dual fuel appliances,
community scale solar water heating, codes &
standards, effects of low-water flow, occupant behavior
in smart buildings**

Minimum Award: \$125,000

Maximum Award: \$250,000

Applications

New residential, multifamily and
commercial buildings



Requirements for Group D

- Activities that support pre-commercial technologies and approaches
- Projects can be studies and/or analyses designed to support implementation or solve specific problems in integrated natural gas systems
- Projects can be early pilot-scale testing necessary to demonstrate the feasibility of pre-commercial technologies



Application Requirements

Every Applicant must complete and include the following:

1. Application Form	7. Budget
2. Executive Summary (limit 2 pages)	8. CEQA Compliance Form
3. Fact Sheet (limit 2 pages)	9. References and Work Product (one page for each reference; two pages for project descriptions)
4. Project Narrative (limit 20 pages)	10. Contact List
5. Project Team (two pages for each resume)	11. Commitment and Support Letters (two pages, excluding the cover page)
6. Scope of Work	



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
 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
 - a. Applicable to groups A, B, and C with match funds above 20% of the CEC funded amount
 - b. Optional to group D
 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

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

Don't delete rows, columns or worksheets. Leave unused cells blank. You may hide unused rows.

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.



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 20% of CEC funded amount in match funding required for Groups A, B, & C.**
- **Project site.** Commitment letters to be signed by an authorized representative of each proposed **testing/demo site**.
- **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

% of Possible Points	Interpretation	Explanation for Percentage Points
0%	Not Responsive	<ul style="list-style-type: none"> The response does not include or fails to address the criteria. The omission(s), flaw(s), or defects() are significant and unacceptable.
10-30%	Minimally Responsive	<ul style="list-style-type: none"> The response minimally addresses the criteria. The omission(s), flaw(s), or defect(s) are significant and unacceptable.
40-60%	Inadequate	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> The response adequately addresses the criteria. Any omission(s), flaw(s), or defect(s) are inconsequential and acceptable.
80%	Good	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	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. PIER NG Funds Spent in California	15
7. Ratio of Direct Labor and Fringe Benefit Rates to Loaded Labor Rates	5
Total	100
Minimum points to pass	70



Project Match Funds (Criteria 8)

- **For Groups A, B, & C, match funding is required in the amount of at least 20% of requested Energy Commission project funds.** Applicants that provide more may receive additional points.
- For Group D, match funding not required. However, applications that include match funding may receive additional points.
- See section I.F.2 and IV.F/Scoring Criteria 8 of Application Manual for details on Match Funding Requirements.



California Based Entities (CBE)(Criteria 9)

- Proposals that meet the requirements for CBEs receive preference points.
- CBEs are entities that:
 - Have their headquarter or an office in California, **and**
 - Manufactures in California the product that is the subject of the award, **or**
 - Has an office for the transaction of business in California, **and**
 - Substantially manufactures the product or substantially performs the research within California that is the subject of the award.
- Please refer to Section IV.F/Scoring Criteria 9 of Application Manual for additional details.



Disadvantaged Communities (Criteria 10)

- Additional points will be provided to projects that meet the following requirements for Groups A, B & C:
 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: <http://oehha.ca.gov/calenviroscreen/report/calenviroscreen-version-20>
- Please refer to Section IV.F/Scoring Criteria 10 of Application Manual for additional details.



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.C.4 and III.C.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.



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 limits, and number of copies specified in Section III.C.
 - **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-16-502/>



CALIFORNIA ENERGY COMMISSION

Connect With Us



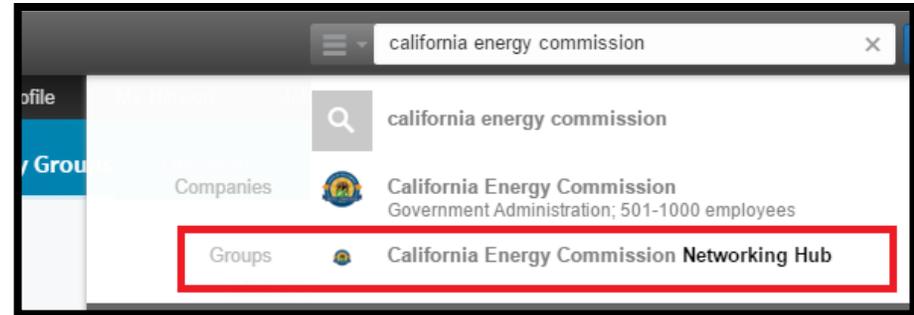


Find Partners via LinkedIn

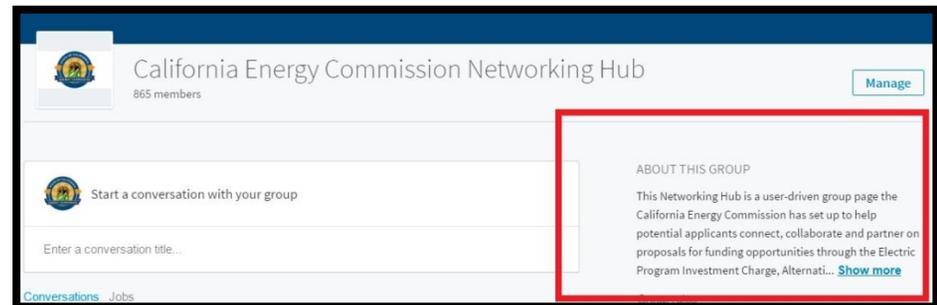
The Energy Commission has created a user-driven LinkedIn group page to help potential applicants **connect, collaborate** and **partner** on proposals for funding opportunities.

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.





Questions and Answers

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

Brad Worster
Commission Agreement Officer
brad.worster@energy.ca.gov

**Deadline to submit questions is
5:00 PM PDT, July 12, 2016!**