



Pre-Application Workshop

**ADVANCING SOLUTIONS THAT ALLOW
CUSTOMERS TO MANAGE THEIR ENERGY
DEMAND**

GFO-15-311

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California Energy Commission
Energy Efficiency Research Office
December 21, 2015



Agenda

Time	Topic
1:30 p.m.	Welcome and Introductions <ul style="list-style-type: none">• Housekeeping• Commitment to Diversity• Background• Solicitation Purpose, Goals, Funding• Eligible Applicants• Key Dates
1:45 p.m.	<ul style="list-style-type: none">• Targeted Areas• Attachment Overview• Match Funding• Proposal Approval Process
2:00 p.m.	Questions and Answers
3:30 p.m.	Meeting Adjourn



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-15-311/>



Commitment to Diversity

The Energy Commission adopted a 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 measure progress in diversity outreach efforts.

Diversity survey online link: <https://www.surveymonkey.com/r/CEC-11-18-2015>

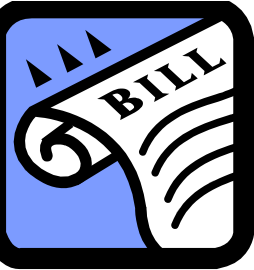


Background

- 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.



California Policy Drivers



- Assembly Bill 32 (Global Warming Solutions Act of 2006)
- Integrated Energy Policy Report (Biennial)
- Renewables Portfolio Standard (SB X1-2, 2011-12)
- Executive Order B-30-15 (Greenhouse gas emissions)
- California Independent System Operator's (CAISO) Demand Response and Energy Efficiency Road Map
- AB 2514-Energy Storage Systems (2010) and CPUC Decision 13-10-040 (Implementing AB2514)
- California Energy Code (Title 24 and Title 20)



Purpose of Solicitation

- Identify, inform and develop strategies for overcoming technical, institutional and regulatory barriers to expanding Demand Response participation in California.
- Enable high renewable resource penetration and meet carbon emissions goals by facilitating the more effective use of Demand Response and Distributed Resources by all sectors of California IOU customers
- Support and build upon ongoing CPUC actions to implement Time of Use rates across customer sectors in California IOU service territories.



Definitions

Distributed Resources: Distributed renewable generation resources, energy efficiency, energy storage, electric vehicles, and demand response technologies

Transactive Energy: TE is a vision of an intelligent device-enabled-grid where each device can utilize economic signals in order to optimize allocation of resources subject to the constraints of the grid. It can be applied within a localized area, e.g., microgrid, or be utilized to manage the whole power system. (CPUC 2014)



Eligible Applicants

- Open to public and private entities and individuals with exception of publically-owned electric utilities
- 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>
- All applicants must agree to the EPIC terms and conditions. <http://www.energy.ca.gov/research/contractors.html>



Group 1: Load Management Systems that Facilitate Participation as Supply-side Resources

All projects must

- Develop, pilot test and compare operational strategies for participation as supply-side resources that maximize customer and system value under CPUC-approved retail and CAISO wholesale tariff structures
 - Include structures developed for the TOU pilots and other tariffs that result from the September 24, 2014 CPUC Ruling in R.12-06-013 and the transactive signal developed in Group 3.
- Address the problems facing customers in developing strategies and optimizing participation.

Potential projects can include the following:

- Participation scenarios that involve individual and/or aggregated customer participation.
- Develop and pilot test technologies and/or strategies to lower the cost of metering and telemetry (including methods of aggregating smaller resources), and investigating strategies and methods of participating in CAISO markets.
- Best practices and data requirements for ancillary service market participation and ways to reduce costs of data verification necessary for grid operators to manage system resources.



Group 2: Load Management Systems that Facilitate Participation as Demand-side Resources

All projects must

- Develop and pilot-test behind-the-meter load management systems and operational strategies that minimize the cost and complexity of customer participation, while maximizing the potential of large numbers of small loads to provide services to the grid
 - Goal is to improve system load factor, shave peaks, integrate renewable generation and provide low opportunity-cost resources to the grid.
- Include sufficient numbers of residential and small commercial customers to assess participation forecasts for sector subgroups and initial performance estimates.
- Compare operational strategies for participation under CPUC-approved retail tariff structures, such as TOU pilots and tariffs resulting from the September 24, 2014 CPUC Ruling in R.12-06-013 and the transactive signal developed in Group 3.
- Address the problems facing customers in developing strategies and optimizing participation.

See Grant Manual Section II.B.2 for more info



Group 3: Develop a Transactive Signal to Facilitate Demand Response

All projects must

- Review the existing literature on the topic of transactive energy and proxy price signals with the goal of adapting existing methods and models to the CAISO balancing area and California IOU service territories.
- Develop, test and operationalize a non-proprietary signal that can be used by utility customers—and other awardees under this solicitation—as a basis for automating their load management strategies.
- Design the signal to be delivered via an open source communications protocol such as OpenADR (Open Automated Demand Response) or SEP (Smart Energy Profile).
- Complete the signal development task within one year in order to begin providing an initial version of the signal in time for Groups 1 and 2 awardees to compare system performance potential under this signal with existing programs and tariffs.

See Grant Manual Section II.B.2 for more info



Group 4: Value Proposition for Nonresidential Building Lighting Retrofits and Demand Response

All projects must

- Evaluate the costs and benefits of Demand Response (DR) control system requirements in the California Energy Code across the existing non-residential building stock in California.
- Identify the conditions under which investments in DR control systems are cost-effective for the customer and characterize and quantify the value to the grid—including operational and infrastructure benefits—of developing DR capability in the existing non-residential building stock.
- Evaluate how different groups of customers will respond to including DR as part of a lighting retrofit program and what would be needed to encourage implementation if it is determined to be cost effective and viable.

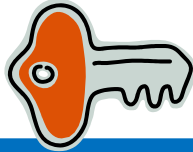


Funding & Research Groups

Total Funding Available: \$ 17 million



Project Group	Available funding	Minimum award amount	Maximum award amount	Estimated Awards
Group 1:	\$8 million	\$2 million	\$4 million	Multiple
Group 2:	\$8 million	\$2 million	\$4 million	Multiple
Group 3:	\$500,000	\$300,000	\$500,000	1
Group 4:	\$500,000	\$250,000	\$500,000	2



Key Dates



Activity	Action Date
✓ Solicitation Release	December 14, 2015
Pre-Application Workshop	December 21, 2015
<u>DEADLINE FOR WRITTEN QUESTIONS</u>	<u>December 22, 2015 at 5 p.m.</u>
Anticipated Post Answers to Questions to Website	Week of January 11, 2016
<u>DEADLINE TO SUBMIT PROPOSALS</u>	<u>February 1, 2016 at 3:00 pm</u>
Anticipated Post Notice of Proposed Award	Week of February 22, 2016
Anticipated Energy Commission Business Meeting Date	May 11, 2016
Anticipated Agreement Start Date	June 2016
Agreement Termination Date	March 31, 2020



Attachment Overview

Every Applicant must complete and include the following Attachments:

1. Application Form	6A. Project Schedule
2. Executive Summary (limit 2 pages)	7. Budget
3. Fact Sheet (limit two pages)	8. CEQA Compliance Form
4. Project Narrative (limit 20 pages)	9. References and Work Product (two pages per project)
5. Project Team (one page for each form and two pages each resume)	10. Contact List
6. Scope of Work	11. Commitment & Support Letters



Project Narrative (Attachment 4)

- Project Narrative form follows proposal Scoring Criteria as defined in Section IV and section II.B of the Grant Manual.
- Complete the form by providing a detailed description of the proposed project(s) and provide the information requested in each of the following areas:
 1. **Technical Merit and Need – make sure you also address the items in Section II.B.2**
 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 (Attachment 7- Budget)**
 7. **Ratio of Unloaded Labor Rates to Loaded Labor Rates**
 8. **Match Funding (optional)**
- Provide enough detail so that reviewers will be able to evaluate the proposal against each of the scoring criteria.



Scope of Work (Attachment 6)

- All of the following tasks are mandatory; please do not revise
 - **Task 1: General Project Tasks**
 - **Task TBD-1 Evaluation of Project Benefits**
 - **Task TBD-2 Technology/Knowledge, Transfer Activities**
 - **Task TBD-3 Production Readiness Plan-only applicable to agreements that fund the development of products that may be commercialized**
- Task 2 are the technical tasks **(also include the items in Section II.B.2)**
 - **Indicate specific tasks in the “Recipient Shall” section (these should be major items)**
 - **“Products” are major 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 and Major Subcontractor must complete and include the budget forms for its team

- Category Budget (Funds spent in CA)
- Direct Labor
- Fringe Benefits
- Travel, Equipment, Materials & Misc., and Subcontractors
- Indirect Costs and Profit (Applicant excluded from Profit)

**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.



Funds Spent in California

- Funds Spent in California compared to Funds Requested.
- Funds spent in CA are:
 - Individuals who pay State income taxes.
 - Business Transactions with businesses located in California.

Percentage of EPIC funds spent in CA (derived from budget attachment "Category Budget")	Percentage of Possible Points (Out of 15 Points)
≥ 60%	20%
≥ 70%	40%
≥ 80%	60%
≥ 90%	80%
=100%	100%



CEQA Compliance Form (Attachment 8)

- This form **MUST** be completed regardless of whether the proposed activity is considered a “project” as defined in Attachment 8.
- Here are some things to consider:
 - Physical aspects of the project (i.e. trenching).
 - Location of project sites.
 - Potential environmental impacts.
 - Discretionary permits.
- All CEQA documents must be completed within sufficient time for the Energy Commission to meet its encumbrance deadline of June 30, 2016.



Commitment & Support Letters (Attachment 11)

- **If match funding is provided:** Commitment letter to 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
- **Pilot test site(s).** To the extent that recruitment involves obtaining the services of an intermediate party (e.g. a utility) a letter that commits that party to provide those services is required.
- **Project partner.** Commitment letters for those making contributions other than match funding or test site. Letter must be signed by an authorized representative and: (1) identifies how the partner will contribute to the project; and (2) commits to making the contribution.
- **Support Letter:** All applicants must include at least **one support letter** from a project stakeholder (an entity that will benefit from or be involved with the project) Letter must: (1) describe their interest or involvement; (2) indicates the relevant industry and/or organization; (3) support it intends to provide²²



Proposal Approval Process

Consists of Two Stages

- Stage 1 – Proposal Screening Section IV.E
- Stage 2 – Proposal Scoring Section IV.F



Proposal Screening

Proposal Screening Process

1. Energy Commission staff screens applications per criteria listed in the Manual section IV.E
2. Criteria is evaluated on a pass/fail basis.
 - Applicants must pass all screening criteria or the applicant will be disqualified.



Reasons for Failing Screening

- Application not signed.
- Applicant does not address an eligible target funding area.
- Applicant submits duplicate applications for the same project.
- Applicant fails to request funds within the minimum and maximum range.
- Applicant has not included a statement or otherwise indicated that it will not accept the terms and conditions.
- Applicant does not provide at least one support letter.
- 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"> 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.

See Section IV.E in the Grant Manual for table



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 points in order 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 32-37)	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. EPIC 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



Match Funding

- Match Funding is **not required** for this solicitation. However, additional points awarded for match funds
- “Match Funds” include:
 - “Cash in hand” funds
 - Equipment
 - Materials
 - Information technology Services
 - Travel
 - Subcontractor costs
 - Contractor/project costs
 - “Advance practice” costs

The remaining 5 points for this criterion will be based on the level of commitment



Grounds for Rejection

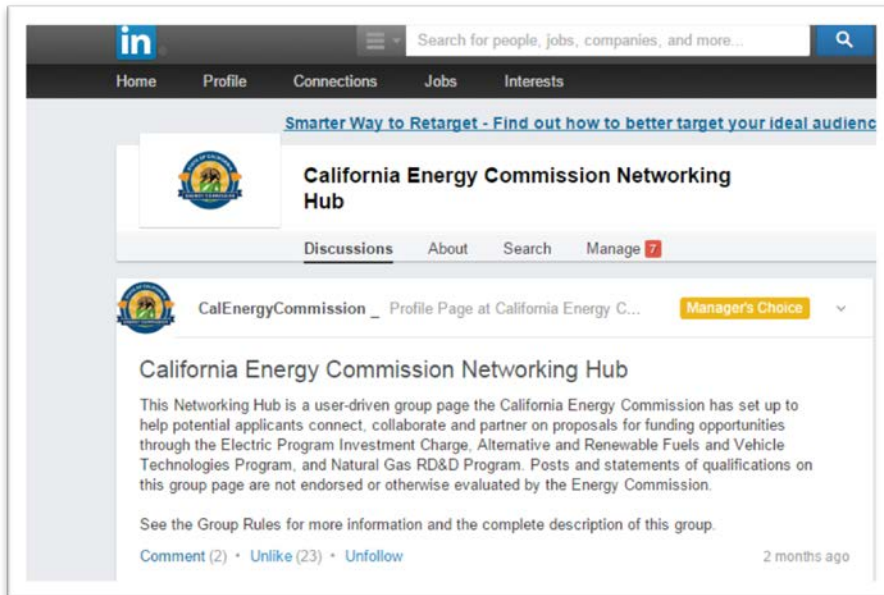
The Energy Commission reserves **the right to disqualify** an application for the following reasons:

- Application contains false or misleading statements
- Application is intended to mislead the State in its evaluation
- Application does not comply with the solicitation requirements
- 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
- Applicant fails to meet CEQA compliance within sufficient time for the Energy Commission to meet the encumbrance deadline.

See Section IV.C in the Grant Manual



Connect With Us





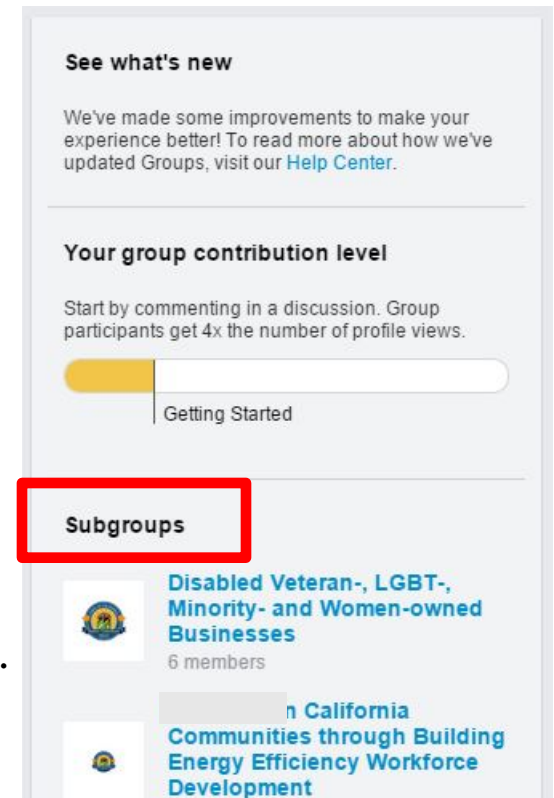
Find Partners via LinkedIn

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

•Participants can join the “California Energy Commission Networking Hub” by:

- Searching for the “California Energy Commission Networking Hub” group; or
- Entering this link into your browser:
(bit.ly/CalEnergyNetwork)

•Once there, find and join the desired solicitation subgroup.





Other Information

- **Solicitation documents and today's presentation:**
<http://www.energy.ca.gov/contracts/epic.html>
- **Sign up for the Listserver by selecting "Opportunity:"**
www.energy.ca.gov/listservers/
- **Information on EPIC:**
www.energy.ca.gov/research/epic/index.html
- **Information on other EPIC solicitations:**
www.energy.ca.gov/contracts/epic.html



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, December 22nd, 2015!**