



Pre-Application Workshop for

RFP-17-303: Research Roadmap for Cost and Technology Breakthroughs for Renewable Energy Generation

RFP-17-306: Research Roadmap for System Transformation to Enable High Penetration of Distributed Energy Resources

California Energy Commission
Energy Research & Development Division
October 20, 2017 – Sacramento, CA



Agenda

Topic

Welcome

- Housekeeping
- Background
- Solicitation Purpose, Goals, Funding
- Eligible Applicants
- Key Dates

Funding Groups

Application requirements

- Screening
- Scoring
- Proposal Approval Process

Questions and Answers

Adjourn



Housekeeping

- In case of emergency
- Facilities
- Sign-in sheet
- Diversity Survey

Updates on solicitation documents and today's presentation will be posted:

RFP-17-303: Research Roadmap for Cost and Technology Breakthroughs for Renewable Energy Generation

<http://www.energy.ca.gov/contracts/epic.html#RFP-17-303>

RFP-17-306: Research Roadmap for System Transformation to Enable High Penetration of Distributed Energy Resources

<http://www.energy.ca.gov/contracts/epic.html#RFP-15-306>



Commitment to Diversity

The California Energy Commission adopted a formal resolution strengthening its commitment to diversity in its funding programs.

We continue to encourage disadvantaged and underrepresented businesses and communities to engage in and benefit from our programs.

To meet this commitment, our 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.



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.

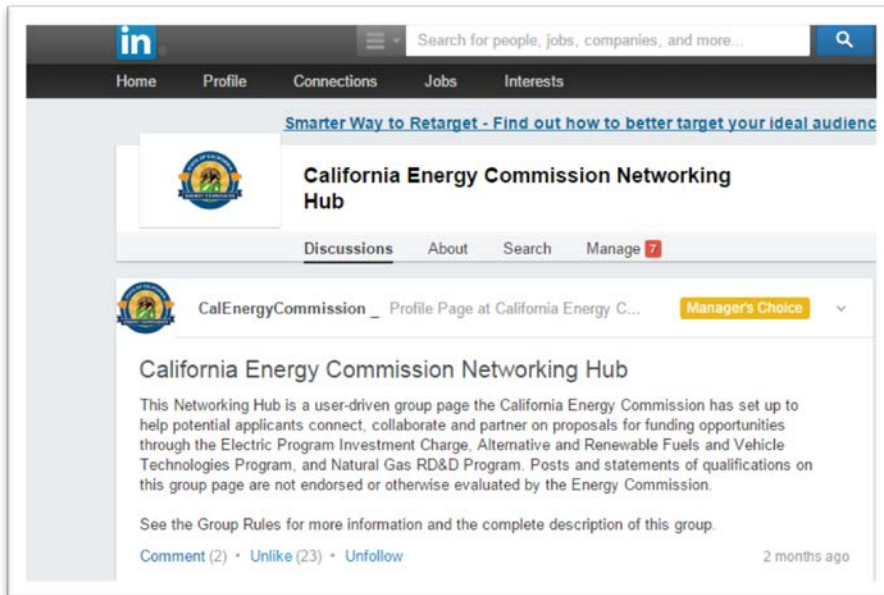
- Paper surveys are being passed around the room
- WebEx participants took the survey when joining

Thanks!





Connect With Us





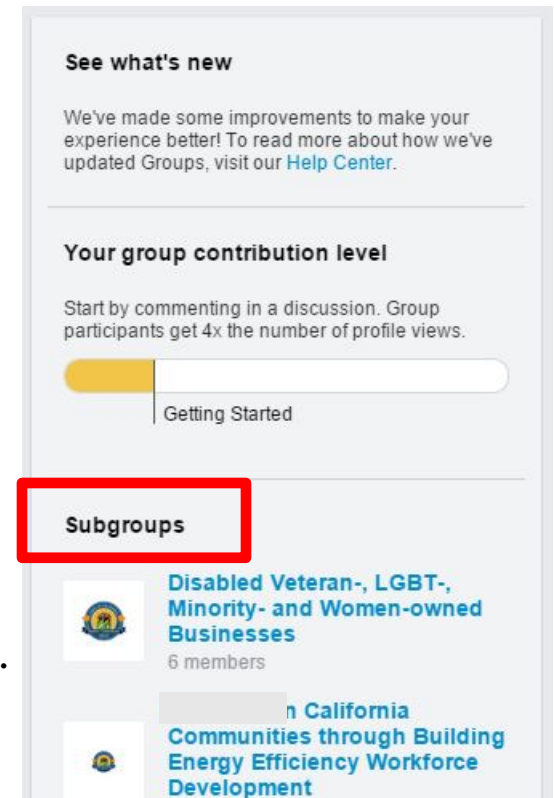
Find Partners via LinkedIn

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.





Background

- The Electric Program Investment Charge (EPIC) is funded by an electricity ratepayer surcharge established by the California Public Utilities Commission (CPUC) in 2011.
 - Annual program funds total \$162 million per year (adjusted for inflation) with 80% administered by the California Energy Commission.
- The purpose of EPIC is to:
 - Benefit the ratepayers of the three largest electric investor-owned utilities, Pacific Gas and Electric Co., San Diego Gas and Electric Co., and Southern California Edison
 - Funds clean energy technology projects that promote greater electricity reliability, lower costs, and increased safety.
 - Encourage technological advancement and breakthroughs to overcome the barriers that prevent the achievement of the state's statutory energy goals.



Overview of Research Roadmap Requirements

These two RFPs will fund efforts to identify and prioritize research on the most critical RDD&D gaps that need to be addressed to achieve California's distributed energy resource, renewable energy, and greenhouse gas emissions reduction goals. Results of the analyses will be used to strategically target future EPIC investments in a manner that provides optimal benefits to IOU electric ratepayers and maximizes the use of public research and development investments.



Research Roadmaps

Solicitation	Funding Amount
RFP-17-303: Research Roadmap for Cost and Technology Breakthroughs for Renewable Energy Generation	\$350,000.00
RFP-17-306: Research Roadmap for System Transformation to Enable High Penetration of Distributed Energy Resources	\$500,000.00



Research Roadmap for Cost and Technology Breakthroughs for Renewable Energy Generation

Potential topics to be covered in the Renewable Energy Research Roadmap include, but are not limited to, the following:

- Reductions in renewable energy capital and operating costs
- Development of faster renewable energy ramping rate flexibility
- Increase in non-variable renewable capacity
- Improved integrated resource forecasting
- Advancements in low-cost, high efficient grid connected (utility scale) storage
- Critical transmission line architectural and telemetry needs
- Other factors facilitating renewable energy siting
- Other barriers and possible solutions to achieving greater use of renewable energy and storage



Research Roadmap for Cost and Technology Breakthroughs for Distributed Energy Resources

Potential topics to be covered in the Distributed Energy Resources Roadmap include, but are not limited to, the following:

- Advancements in low-cost, high efficiency distribution, community and residential scale storage.
- Holistic, integrated net load forecasting.
- Examination of aggregated DERs as a grid upgrade alternative.
- Community-scale integrated renewable energy systems.
- How the effective use of smart inverters, sensors, microsynchrophasors, and distribution management technologies enable the effective use of DERs.
- Technologies and strategies to enable 2-way distribution power flows.
- Electric vehicle grid integration and smart charging.
- Targeted demand response opportunities to support renewables integration.



Key Dates

Activity	Action Date
✓ Solicitation Release	October 16, 2017, and October 17, 2017
Pre-Application Workshop (Sacramento)	October 20, 2017
<u>DEADLINE FOR WRITTEN QUESTIONS</u>	<u>October 27, 2017 5:00 PM</u>
Anticipated Distribution of Questions and Answers	November 10, 2017
<u>DEADLINE TO SUBMIT APPLICATIONS</u>	<u>December 8, 2017 5:00 PM</u>
Anticipated Notice of Proposed Award (NOPA)	January 25, 2018
Anticipated Energy Commission Business Meeting Date	March-April 2018
Anticipated Agreement Start Date	April-May 2018
Agreement Termination Date	October-November 2019



Proposal Deadline and Delivery

- Deadline to Submit Applications is December 8, 2017 5:00 PM.
- Proposals may be submitted by mail, personally delivered or courier service.
- Bidders must submit the original and five hard copies of the proposal.
- Proposals must be labeled with Request for Proposal 17-303 or Request for Proposal 17-306.
- Separate proposals are required for each solicitation.
- Bidders must also submit electronic files of the proposal on CD-ROM or USB memory stick along with the paper submittal. Only one CD-ROM or USB memory stick is needed.
- Electronic files must be in Microsoft Word 2007 (.doc format) and Excel Office Suite formats.



Administrative Response Requirements

Each Bidder must complete and include the following:

1. Cover Letter	6. Completed DVBE Form (Attachment 3)
2. Table of Contents	7. Bidder Declaration Form GSPD-05-105 (Attachment 4)
3. Contractor Status Form (Attachment 1)	8. Contractor Certification Clauses (Attachment 5)
4. Darfur Contracting Act Form (Attachment 2)	9. TACPA Forms (if applicable)
5. Small Business Certification (if applicable)	10. California Civil Rights Law Certification (Attachment 10)



Technical Proposal Requirements

Each Bidder must complete and include the following:

1. Technical Merit and Need	6. EPIC Funds Spent in California
2. Technical Approach	7. Client References Form (Attachment 6)
3. Team Qualifications, Capabilities, and Resources	8. Budget Forms (Attachment 7)
4. Previous Work Products	9. Commitment and Support Letters (Attachment 9)
5. Budget and Cost Effectiveness	



Scope of Work

Task #	Task Name
1	Administration and Contract Management
2	Technical Assessment of Renewable/Distributed Energy Resources Technologies and Strategies
3	Finalize Methodology for Developing the Research Roadmap
4	Develop the Research Roadmap
5	Finalize the Research Roadmap



Task 1 Agreement Management

The Contractor will closely manage staff and subcontractors to ensure all deliverables set out in the Scope of Work are on time and complete. Task 1 specifically includes:

- Kick-off Meeting
- Invoicing details
- Quarterly Progress Reports
- Subcontractor management details
- Project Meetings and Briefings
- Technical Advisory Committee (TAC) and TAC meetings
- Final report and meeting
- Match funding information



Task 2 Technical Assessment of Technologies and Strategies

The goal of this task is develop a technical assessment of the current baseline and best in class technologies and strategies, including cost and performance specifications and attributes.

Activities conducted in this task include:

- Technical assessment
- Literature review
- Assemble a list of experts to interview
- Develop interview questions
- Conduct expert interviews



Task 3 Finalize Roadmap Methodology

The goal of this task is to finalize the Methodology submitted in the proposal.

The methodology should describe:

- Proposed topics to be covered in the Research Roadmap.
- Proposed approach to:
 - Coordinate and collaborate with Energy Commission staff, including periodic check-in points with the CAM at key milestones and decision-points in the development of the Research Roadmap.
 - Solicit input from experts and stakeholders on gaps and needs.
 - Identify and prioritize the most important RDD&D gaps.
 - Etc.



Task 4 Develop Roadmap

The goal of this task is to develop the Research Roadmap in accordance with methodology finalized in Task 3.

The Research Roadmap must include, but may not be limited to the following:

- A detailed description of issues associated with the topic or critical barriers preventing the state from advancing technologies and achieving energy goals.
- Summary analysis of past and current research efforts and results around key topics identified in the Research Roadmap.
- Description of RDD&D gaps and recommended and prioritized RDD&D activities for each topic needed to achieve cost-effective integration of high-penetrations of renewable energy resources
- Description of the Methodology used in developing the Research Roadmap.



Task 5 Finalize the Research Roadmap

The goal of this task is to finalize the Research Roadmap.

Important aspects of the Roadmap include:

- A discussion of methodology for estimates regarding customer adoption and technology development.
- Producing the Roadmap in a format that is beneficial for both technical experts and a more general audience, including visual aids to outline priority research areas.



Scoring Criteria: Administrative Screening

Proposal Admin Screening Process

1. Energy Commission staff screens proposals per criteria in the solicitation.
2. Criteria is evaluated on a pass/fail basis.
 - ✓ Bidders must pass all screening criteria or the Bidder will be disqualified.

Some Reasons for Failing Screening

- ✓ Proposal is unsigned.
- ✓ Proposal not submitted by the specified due date and time.
- ✓ Requested funding is outside of the specified minimum/maximum range.
- ✓ Project completion date beyond the specified agreement end date.
- ✓ Application does not include one or more support letters.
- ✓ Proposal contains confidential material.



How will my proposal be evaluated?

- **Evaluation Committee applies the scoring scale to the scoring criteria**
- **A minimum passing score of 70% is required for criteria 1 to 2, 1 to 6, and all criteria (1 to 7) — equivalent to a score of 32, 49, and 70, respectively, for a Proposal to be considered for funding**
- **Each Bidder must review Section IV - Evaluation Process and Criteria section of the solicitation and ensure that its proposal provides a clear and complete response to each scoring criterion.**

Scoring Criteria (page 41-44 in Renewable; 43-46 in DER)	Maximum Points
1. Technical Merit and Need	5
2. Technical Approach	40
3. Team Qualifications, Capabilities & Resources	10
4. Previous Work Products	2
5. Budget and Cost-Effectiveness	3
6. EPIC Funds Spent in California	10
7. Cost Points	30
Total	100
Minimum points to pass	70



What is Important?

Scoring Criteria (page 41-44 in Renewable; 43-46 in DER)	The Question to Answer
1. Technical Merit and Need	Why should your project be funded?
2. Technical Approach	How you're going to do what you're going to do? <u>The Draft Research Roadmap Methodology</u> is evaluated here.
3. Team Qualifications, Capabilities & Resources	Who is going to make this project happen, and what resources are available to make it happen?
4. Previous Work Products	Have you have done related work, and was it good?
5. Budget and Cost-Effectiveness	Are you spending money wisely?
6. EPIC Funds Spent in California	This is a direct calculation based on forms in the budget.
7. Cost Points	This is a direct calculation based on the bidder's cost bid and the lowest bidder's cost bid



Preference Points

A Bidder may qualify for non-technical preference points described below. Each qualifying Bidder passing the minimum technical evaluation will receive the applicable preference points. These are:

- Disabled Veteran Business Enterprise Participation Compliance Requirements
- Small Business / Microbusiness Preference
- Non-Small Business Preference
- Target Area Contract Act Preference
- Match Funding



Other Information

- **Solicitation documents and today's presentation:**
www.energy.ca.gov/contracts/epic.html#active
- **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#anticipated



Contacts and Key Dates

Research Roadmap for Cost and Technology Breakthroughs for Renewable Energy Generation (RFP-17-303).

Contact: Phil Dyer (916) 654-4651

Phil.Dyer@energy.ca.gov

Research Roadmap for Research Roadmap for System Transformation to Enable High Penetration of Distributed Energy Resources (RFP-17-306)

Contact: Andrea Hoppe (916) 651-0588

Andrea.Hoppe@energy.ca.gov

Deadline to Submit Written Questions: October 27th, 2017 5:00 PM

Deadline to Submit Applications: December 8th, 2017 5:00 PM



Questions and Answers

Please send all questions to:

Renewable Energy Roadmap

RFP-17-303

Phil Dyer

(916) 654-4651

Phil.Dyer@energy.ca.gov

DER Roadmap

RFP-17-306

Andrea Hoppe

(916) 651-0588

Andrea.Hoppe@energy.ca.gov

Commission Agreement Officer

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Sacramento, CA 95814

(916) 654-4423 (fax)

Deadline to submit questions is October 27, 2017

5:00 PM PDT!