



CALIFORNIA ENERGY COMMISSION

Pre-Application Workshop

**Natural Gas Research, Development, and Demonstration
Grant Solicitation**

**Roles, Impacts, and Integration Needs of Natural Gas Generation
in California's Renewable Future**

PON-14-506

Energy Generation Research Office
Energy Research and Development Division
California Energy Commission

February 6, 2015



Agenda

Time	Topic
10:00 am	Welcome <ul style="list-style-type: none">• Housekeeping• Background, Policy Drivers, Solicitation Purpose, Topic Areas• Eligible Applicants• Key Dates
10:15 am	Research Project
10:30 am	Application Requirements: <ul style="list-style-type: none">• Formatting and Attachments• Evaluation Process• Grounds for Rejection
10:45 pm	Questions and Answers



Housekeeping

- In case of emergency
- Facilities
- Sign-In Sheet
- Updates on Solicitation Documents and today's presentation can be found at:
<http://www.energy.ca.gov/contracts/pier.html#PON-14-506>



Background

- The Natural Gas Research, Development and Demonstration Program is funded by a natural gas ratepayer surcharge established by the California Public Utilities Commission (CPUC) in 2000
- The purpose of Natural Gas RD&D is to benefit the ratepayers of natural gas investor-owned utilities*
- Natural Gas RD&D funds clean energy technology projects that promote greater natural gas 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 \$24 million

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



Policy Drivers for Energy Generation RD&D

- Laws and Regulations:
 - Assembly Bill 32 (Global Warming Solutions Act)
 - Senate Bill X1-2 (Renewable Portfolio Standard)
- Policies/Plans
 - Governor Brown's Clean Energy Jobs Plan
 - Integrated Energy Policy Report



Solicitation Purpose

The purpose of this solicitation is to fund research project(s) that:

- Performs Hydraulic simulations of the natural gas pipeline system
 - Focusing on segments impacted by load following and peaking plants
- Determines what level of intermittent renewable electricity generation (e.g. 50%) can be supported by the existing natural gas system, and
- What changes or improvements to the existing system would be needed to significantly increase this percentage.



Funding

- Up to \$500,000 is available in funding.
 - Project funding range: \$200,000 to \$500,000
- Match funding is not required, but applications that include match funding will receive additional points during the scoring phase.
 - See attachment 11 for information on the required aspects of match funding commitment letters.
- The Energy Commission reserves the right to:
 - Increase or decrease the available funding and the group minimum/maximum award amounts described in this section.
 - Allocate any additional or unawarded funds to provide awards to passing applications, in rank order.
 - Reduce funding to an amount deemed appropriate if the budgeted funds do not provide full funding for agreements. In this event, the Recipient and Commission Agreement Manager will reach agreement on a reduced Scope of Work commensurate with available funding.



Key Dates

Activity	Action Date
✓ Solicitation Release	January 23, 2015
Pre-Application Workshop	February 6, 2015
<u>DEADLINE FOR WRITTEN QUESTIONS</u>	<u>February 9, 2014 by 5:00 p.m.</u>
Anticipated Distribution of Questions and Answers	Week of February 23, 2015
<u>DEADLINE TO SUBMIT APPLICATIONS</u>	<u>March 10, 2015 by 3:00 p.m.</u>
Anticipated Notice of Proposed Award (NOPA) Posting	April 10, 2015
Anticipated Energy Commission Business Meeting Date	June 2015
Anticipated Agreement Start Date	June 30, 2015
Agreement Termination Date	July 2017



Eligible Applicants

- This is an open solicitation for public and private entities and individuals.
- Applicants must accept the Natural Gas RD&D terms and conditions
- 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 projects.



Project Focus

Using appropriate scales for the simulation parameters research must look at least 20 years into the future and account for

- Increased renewables;
- Increased coal retirement and reliance on natural gas nationwide and in the west;
- Exports of natural gas; and
- Supply Constraints.

Applicants are encouraged to form partnerships with expertise in both the natural gas and the electricity generation sectors.



Project Criteria

Applicants must develop a set of natural gas and electricity inputs to evaluate the dynamics of the natural gas and electricity system to create a robust analysis under future conditions, as it relates to the integration of intermittent renewable electricity generation resources. This can include:

- Critical conditions that may result in curtailment for California electric generators;
- Needs and impacts of increased ramping requirements;
- Attributes of the natural gas plants providing the ramping needs; and
- The impacts of strategies, technical approaches, and policies that may mitigate or exasperate the difficulties with integration of intermittent renewable energy resources.



Application Requirements

- Submit Applications with all attachments in the order specified by the due date and time listed.
- Application documents should meet formatting requirements, page limits, and number of copies specified on page 12.
 - **Five** hard copies and **one** electronic copy
- Evaluation Consists of Two Parts
 - Part 1 – Proposal Screening (Section E, page 20)
 - Part 2 – Proposal Scoring (Section F, pages 20-26)



Application Requirements

Every Applicant must complete and include the following:

1. Application Form	7. Budget
2. Executive Summary	8. CEQA Compliance Form
3. Fact Sheet	9. Reference and Work Product
4. Project Narrative	10. Contact List
5. Project Team	11. Commitment and Support Letters
6. Scope of Work	12. California-Based Entities (CBE)



Application Form (Attachment 1)

- Form provides the Energy Commission with basic information about the Applicant and project.
- Must include all information requested
- Must be signed by an authorized representative of the applicant's organization
- Information provided should be consistent with project budget, narrative, and letters of commitment.



Executive Summary Form (Attachment 2)

- Executive Summary should summarize the information included in the project narrative
- Must include:
 - Project description
 - Project goals and objectives
 - Explanation of how the goals and objectives will be achieved, quantified, and measured
 - Description of the project tasks
 - Overall management of the agreement.
- Limited to **two** pages



Fact Sheet Template (Attachment 3)

- Must present project information in a manner suitable for publication (if funded).
- The fact sheet must follow the template provided, including:
 - A summary of project specifics
 - A description of the issue addressed by the project
 - A project description
 - Anticipated benefits for the State of California
- Limited to **two** pages



Project Narrative (Attachment 4)

- Project Narrative form follows the Application Scoring Criteria (page 22-26)
- 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 Above the Minimum (optional)
 9. California-Based Entity
- Provide sufficient detail so that reviewers will be able to evaluate the proposal against each of the scoring criteria.
- Limited to **twenty** pages



Project Team Form (Attachment 5)

- Must identify all key personnel assigned to the project
 - “Key personnel” are individuals that are critical to the project due to experience, knowledge, and/or capabilities.
- Clearly describe their individual areas of responsibility
 - Limited to **one** page per individual
- Include a resume for each individual
 - Limited to **two** pages for each resume



Scope of Work (Attachment 6)

- Ensure that the problem/Solution Statement and Goals and Objectives are consistent with the Project Narrative
- All tasks in black are mandatory; 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
- Technical tasks
 - 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.



Project Schedule (Attachment 6a)

- Provide meeting and product titles and the due dates
- All of the products must match as shown in the Scope of Work (Attachment 6)



Budget (Attachment 7)

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

- ✓ Task Summary - Att B-1
- ✓ Category Summary - Att B-2
- ✓ 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
- ✓ Direct Operating Expenses – Att B-5
- ✓ Match Funding – Att B-6 (Required)
- ✓ Rates Summary - Att B-7 (for evaluation purposes - info automatically transferred from Attachment B-2)

Don't delete sheets or rows;
use the hide/expand function
The colored cells are
automatically filled with
information from other
pages in the workbook

The Applicant must submit information on **all** of the attached budget forms, and in the format required.



California Environmental Quality Act (CEQA) Compliance Form (Attachment 8)

- The information provided will help facilitate the Energy Commission's environmental evaluation of the proposed project under CEQA.
- All sections of the form must be completed.
- Failure to complete CEQA process in a timely manner may result in cancellation of the award.



Reference and Work Product Form (Attachment 9)

- This form provides past reference and work products and contains two sections.
- Section 1: References
 - Provide applicant and subcontractor references as instructed
 - Include three references for Applicant and two for each subcontractor
- Section 2: Work Products
 - Provide a list of up to three past projects detailing technical and business experience of the applicant or team member (two pages maximum per project)
 - Include copies of up to three recent relevant technical publications



Contact List Template (Attachment 10)

- Identifies the names and contact information of the project manager, administrator, and accounting officer.
- Applicant should complete the information in the “Recipient” column shown in blue text
- Energy Commission staff will complete the information in the “California Energy Commission” column



Commitment and Support Letter Form (Attachment 11)

- This form provides guidelines for the submission of letters of support or commitment that are submitted with the application.
 - Commitment letter commits an entity to providing the service or funding described
 - Support letter details an entity or individual's support for the project
- All Applicants are required to submit at least one support letter from a project stakeholder.
- Any project partners that will make other contributions to the project must submit a commitment letter.
- Any match funding provided must be supported by a match fund commitment letter.
- Limited to **two pages** per letter, excluding the cover page



California-Based Entities Form (Attachment 12)

- This form is used to identify any California-based entities (CBE) and contains two parts.
- Part I: CBE Requirements
 - Provides the required criteria to identify as a CBE
- Part II: CBE Questionnaire
 - All questions on this form must be answered for CBE qualification to be considered
- CBEs are granted preference points (please refer to the scoring criteria in the solicitation manual for details)



Evaluation of Proposals

→ Application Screening

Application Screening Process (page 21)

1. Energy Commission staff screens applications per criteria in the solicitation (pages 20).
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.

Some Reasons for Failing Screening

- ✓ Application not submitted by the specified due date and time
- ✓ Applicant did not address the project focus
- ✓ Requested funding is outside of the specified minimum/maximum range
- ✓ Project completion date beyond the specified agreement end date
- ✓ Application contains confidential material
- ✓ Application does not include one or more support letters, as described in Attachment 11



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.



How will my application be evaluated?

- Evaluation Committee applies the scoring scale to the scoring criteria
- For criteria 1 to 4—a minimum score of 49.00 is required for an Application 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)
- Bonus points are also awarded (blue)
- 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 29-34)	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
Minimum points to pass	70
Match Funding Above 20%	5
California-Based Entity	5



Technical Merit and Need (Criterion 1)

- Describes the goals, objectives, technological or scientific knowledge advancement, and innovation in proposed project.
- Lead to technological advancement and breakthroughs that overcome barriers to achieving the state's energy goals.
- Summarizes and explains how the project will advance, supplement, and/or replace relevant technology and/or scientific knowledge, technology.
- Demonstrates that all the project criteria, are met, or are planned to be met by the project during the project term.



Technical Merit and Need (Criterion 1) (cont'd)

- Justifies need for natural gas RD&D funding, explains why work is not adequately supported by competitive or regulated markets.
- Discusses how proposed work is technically feasible and achievable.
- Summarizes the current technology and explains how the proposed project will advance, supplement, or replace current technology
- Provides a clear and plausible measurement and verification plan.



Technical Approach (Criterion 2)

- Describes the technique, approach, and methods to be used in providing performing the work described in the Scope of Work. Highlights any outstanding features.
- Describes how tasks will be executed and coordinated with various participants and team members.
- Identifies and discusses factors critical for success, in addition to risks, barriers, and limitations. Provides a plan to address them.
- Describes how the knowledge gained, experimental results, and lessons learned will be made available to the public and key decision-makers.



Impacts and Benefits for California IOU Ratepayers (Criterion 3)

- Explains benefits to California Investor-Owned Utility (IOU) ratepayers with respect to natural gas RD&D goals: greater reliability, lower costs, and/or increased safety.
- Provides **quantitative** estimates of potential benefits for NG IOU ratepayers.
- States timeframe, assumptions, & calculations for estimated benefits & explains reasonableness.
- Identifies CA impacted market segments & underlying assumptions.
- Discusses **qualitative** or intangible benefits to natural gas IOU ratepayers, including timeframe & assumptions.
- Provides cost-benefit analysis - compares project costs to anticipated benefits & includes how costs & benefits will be calculated & quantified, & identifies assumptions



Team Qualifications, Capabilities, and Resources (Criterion 4)

- Organizational structure of applicant & project team & chart.
- Identifies key team members (*Attachment 5*).
- Summarizes team members qualifications, experience, capabilities, & credentials (*Attachment 5*).
- Explains management & coordination of tasks, & how project manager's experience supports management & coordination .
- Describes facilities, infrastructure & resources available to team.
- Describes team's history of completing projects (e.g., RD&D projects) & commercializing &/or deploying results/products.
- Identifies projects that resulted in market-ready technology (*Attachment 9*).
- References, within past three years (*Attachment 9*).



Team Qualifications, Capabilities, and Resources (Criterion 4) (cont'd)

- Identifies & explains collaborations with utilities, industries, or others.
- Demonstrates financial ability to complete project, as indicated in responses to the following questions:
 - Has your organization been involved in a lawsuit or government investigation in past ten years?
 - If yes, what was the final disposition of the case, including any settlement/judgment amount?
 - Does your organization have overdue taxes?
 - Has your organization ever filed for or does it plan to file for bankruptcy?
 - Has any party that entered into an agreement with your organization terminated it, and if so for what reason?
 - For Energy Commission executed agreements listed in application within past five years, has organization failed to provide final report by due date ?



Team Qualifications, Capabilities, and Resources (Criterion 4) (cont'd)

- Support or commitment letters (for match funding, test sites, demonstration/deployment sites, or project partners) indicate strong support or commitment & value associated with match funding amounts is supported & reasonable.
- Describe progress in CEQA process.



Budget and Cost-Effectiveness (Criterion 5)

- Justifies the reasonableness of the requested funds relative to the project goals, objectives, and tasks.
- Justifies the reasonableness of costs for direct labor, non-labor (e.g., indirect overhead, general and administrative costs, and subcontractor profit), and operating expenses by task.
- Explains why hours proposed for personnel & subcontractors are reasonable to accomplish Scope of Work activities (Attachment 6).
- Explains how the applicant will maximize funds for technical tasks & minimize expenditure of funds for program administration & overhead.



Natural Gas RD&D Funds Spent in California (Criterion 6)

- Projects that spend natural gas RD&D funds in California will receive points as indicated in the table below. “Spent in California” means that: (1) Funds under the “Direct Labor” category and all categories calculated based on direct labor in the B-4 budget attachments (Prime and Subcontractor Labor Rates) are paid to individuals who pay California state income taxes on wages received for work performed under the agreement; and (2) Business transactions (e.g., material and equipment purchases, leases, rentals, and contractual work) are entered into with a business located in California.

Percentage of EPIC funds spent in CA (derived from budget attachment B-2)	Percentage of Possible Points
>60%	20%
>70%	40%
>80%	60%
>90%	80%
100%	100%

- Airline ticket purchases and payments made to out-of-state workers are not considered funds “spent in California.” However, funds spent by out-of-state workers in California (e.g., hotel and food) are considered funds “spent in California.”



Ratio of Direct Labor and Fringe Benefit Rates to Loaded Labor Rates (Criterion 7)

- The score for this criterion will derive from the Rates Summary worksheet (Tab B-7) in the budget forms, which compares the weighted direct labor and fringe benefits rate to the weighted loaded rate. This ratio, as a percentage, is multiplied by the possible points for this criterion.



Project Match Funds (Criterion 8)

- Match funding is not required.
- Points applied only for those that achieve a minimum score of 70.
- To qualify for consideration, match funding contributors must submit match funding commitment letters & follow Attachment 11 requirements.
- Up to three points will be awarded for the percentage of match funds compared to the natural gas RD&D funds requested. The percentage will be multiplied by three and rounded to the nearest whole number.
- The remaining 2 points for this criterion will be based on the level of commitment, dollar value justification, and funding replacement strategy.



California-Based Entity (Criterion 9)

- Preference points are awarded to California-Based Entities (CBEs).
- Points applied only for those that achieve a minimum score of 70.
- A California-Based Entity (CBE) Form (Attachment 12) must be completed and submitted as part of the application package.
- Energy Commission staff will verify CBE status and award 5 preference points to CBEs.



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
- ✓ The application is not submitted in the format specified



Key Dates

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✓ Solicitation Release	January 23, 2015
✓ Pre-Application Workshop	February 6, 2015
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Other Information

- **Updates on Solicitation Documents and today's presentation:**

<http://www.energy.ca.gov/contracts/pier.html#PON-14-506>

- **Sign up for the Listserv by selecting “Opportunity:”**

www.energy.ca.gov/listservers/

- **Information on natural gas RD&D:**

www.energy.ca.gov/research/index.html

- **Information on other natural gas RD&D solicitations:**

www.energy.ca.gov/contracts/pier.html



Questions and Answers

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

Angela Hockaday

Commission Agreement Officer

angela.hockaday@energy.ca.gov

Please add “PON-14-506 Question” in Subject Line

**Deadline to submit questions is
5:00 PM PDT, February 9, 2015!**