Pre-Application Workshop

Natural Gas Pipeline Safety and Integrity Management Research Grant
GFO-15-504

Energy Research and Development Division
California Energy Commission
Art Rosenfeld Hearing Room
December 28, 2015
## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 am</td>
<td>Welcome, Housekeeping and Overview of Natural Gas Research</td>
</tr>
<tr>
<td>10:15 am</td>
<td>Solicitation Overview, Highlights</td>
</tr>
<tr>
<td>10:30 am</td>
<td>Application Requirements</td>
</tr>
<tr>
<td>11:00 am</td>
<td>Questions and Answers, Networking</td>
</tr>
<tr>
<td>11:45 am</td>
<td>Adjourn</td>
</tr>
</tbody>
</table>
Housekeeping

• In case of emergency
• Facilities
• Muting of WebEx during presentation
• Sign-In Sheet
• Diversity Survey
• Q&A protocol

Updates on solicitation documents and today’s presentation will be posted at:
http://www.energy.ca.gov/contracts/pier.html#GFO-15-504
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.
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.

- Does your company identify as an underrepresented group?

- Where is your company located?

- How did you hear about the workshop?

- Online survey for WebEx Participants:
Connect With Us (www.energy.ca.gov)
Find Project 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;
  - Entering this link into your browser:(bit.ly/CalEnergyNetwork)
- Once there, find various subgroups that relate to specific funding opportunities by checking the “About this group” section of the Networking Hub.
Background

• The Natural Gas (NG) Research Program is funded by a natural gas surcharge established by the CPUC in 2005.
• The purpose of this program is to benefit the ratepayers of the three gas supplying Investor-Owned Utilities (IOU)*.
• Funded projects must promote greater natural gas reliability, lower costs, reduced GHG emissions 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 approximately.

*Pacific Gas and Electric Co. (PG&E), Southern California Gas Company (SoCalGas) and San Diego Gas and Electric Company (SDG&E)
Policy Drivers

Research for meeting our Energy Policy Goals

• **Public Resources Code 25620** - The program goal is to develop and bring to market technologies that provide greater system reliability, increased environmental benefits and lower system costs.

• **2011 Integrated Energy Policy Report** - “The state needs public interest energy research to explore opportunities and apply new and emerging technologies that provide innovative options for natural gas pipeline integrity, operations, and safety.”


• **CPUC Natural Gas Safety Action Plan (April 2013)** - Research is needed to develop cost-effective natural gas safety inspection equipment and tools for risk analysis.

• **The Natural Gas Research, Development and Demonstration Plan for Fiscal year 2014-2015.**

Solicitation Purpose

• Fund projects that:
  – demonstrate natural gas pipeline safety and integrity management technologies in a utility setting (The technology must be past the “proof-of-concept” stage.),
  – improve situational information and awareness, and enhance pipeline safety and integrity management practices, and
  – conduct a thorough assessment of current status of pipeline safety and integrity monitoring and management technologies.
Funding

- Up to $2,916,929 available
- Minimum request is $1,000,000
- Maximum request is $1,500,000

Match funding is not required, but if provided, applications may get additional points during scoring phase.
# Key Dates

<table>
<thead>
<tr>
<th>Activity</th>
<th>Action Date</th>
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<tbody>
<tr>
<td>✓ Solicitation Release</td>
<td>12/16/2015</td>
</tr>
<tr>
<td>Pre-Application Workshop</td>
<td>12/28/2015</td>
</tr>
<tr>
<td><strong>DEADLINE FOR WRITTEN QUESTIONS</strong></td>
<td><strong>12/28/2015 @ 5:00 pm</strong></td>
</tr>
<tr>
<td>Anticipated Distribution of Questions and Answers</td>
<td>Week of January 4, 2016</td>
</tr>
<tr>
<td><strong>DEADLINE TO SUBMIT APPLICATIONS</strong></td>
<td><strong>2/8/2016 @ 3:00 pm</strong></td>
</tr>
<tr>
<td>Anticipated Notice of Proposed Award (NOPA)</td>
<td>March 10, 2016</td>
</tr>
<tr>
<td>Anticipated Energy Commission Business Meeting Date</td>
<td>May 11, 2016</td>
</tr>
<tr>
<td>Anticipated Agreement Start Date</td>
<td>June 30, 2016</td>
</tr>
<tr>
<td>Agreement End Date</td>
<td>No later than March 31, 2018</td>
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Applicant Requirements
(Part II - Eligibility Requirements Pages 12 – 15)

• Public and private entities.

• Required to register with the California Secretary of State and in good standing to enter into an agreement with the California Energy Commission.

  http://www.sos.ca.gov

• (California-Based Entities)
  • (Disadvantaged Communities)
  • Must agree to the PIER Grant Terms and Conditions without negotiation.

  http://www.energy.ca.gov/contracts/pier.html#piergeneralinfo

Grant:
• Standard
• University of California
• Department of Energy (DOE)
Project Requirements
(Part II - Eligibility Requirements Pages 12 – 15)

• Focus on the demonstration and deployment of emerging natural gas pipeline technologies in natural gas investor-owned utility service territories.

• Projects must involve the emerging natural gas pipeline technologies that fall within one or more of the Project Groups listed below:

  **Project Group 1:** Technologies that Improve Situational Information

  **Project Group 2:** Technologies that Enhance Integrity Management Practices through Risk Analysis, Prediction, and Decision-Based Methodology

  **Project Group 3:** Natural Gas Pipeline Safety and Integrity Monitoring Technologies Assessment
Eligible Projects

Project Group 1: Technologies that Improve Situational Information

1. Technologies must be capable of providing secure and reliable mapping and pipeline infrastructure information (e.g., system maps, aerial photography, and summary descriptions written in plain language) to a variety of audiences including first responders, local law enforcement, and the general public in an interactive and secure manner that is easily understood; and

2. Information must be transmitted to relevant parties through common but secure channels of distribution such as websites, texts, radio, and telephone.
Eligible Projects

Project Group 2: Technologies that Enhance Integrity Management Practices through Risk Analysis, Prediction, and Decision-Based Methodology

1. Technologies must be performance-based rather than prescriptive, involve risk modeling, and have the ability to predict natural gas pipeline incidents;

2. Methodologies must assess risk using a set of known and unknown threats;

3. Techniques must incorporate leading rather than lagging indicators; and

4. Technologies must give operators the ability to identify, rank, mitigate, and continually track threat interactions.
Eligible Projects

Project Group 3: Natural Gas Pipeline Safety and Integrity Monitoring Technologies Assessment

1. Assessment of the current status and future needs of the cost-effective technologies for natural gas pipeline safety and integrity assessment and risk management. Technologies must be performance-based rather than prescriptive, involve risk modeling, and have the ability to predict natural gas pipeline incidents;

   i. Using techniques such as Technology Readiness Level (TRL), categorize the most cost-effective technologies into different stages of research and development such as Basic Research, Applied Research, Development, Demonstration, Deployment, and Commercialization.

   ii. Identify the research gaps and estimate the resources [costs and time (months, years)] needed to fill the identified research gaps.

   iii. Develop a research and development plan and specific recommendations to implement the plan.
Each Applicant must complete and submit the following documents:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. Application Form – <em>Signature required</em></td>
<td>7. Budget Forms</td>
</tr>
<tr>
<td>2. Executive Summary Form</td>
<td>8. CEQA Compliance Form</td>
</tr>
<tr>
<td>3. Fact Sheet</td>
<td>9. References and Work Product</td>
</tr>
<tr>
<td>4. Project Narrative Form</td>
<td>10. Contact List Template</td>
</tr>
<tr>
<td>5. Project Team Form</td>
<td>11. Commitment and Support Letters (as applicable) – <em>Signature(s) required</em></td>
</tr>
<tr>
<td>6a. Scope of Work Template</td>
<td>13. California-Based Entity (CBE) Form</td>
</tr>
<tr>
<td>Project Schedule</td>
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</table>
Project Narrative (Attachment 4)

- Project Narrative form follows proposal Scoring Criteria beginning on page 28 of the Solicitation 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
  2. Technical Approach
  3. Impacts and Benefits for California Ratepayers
  4. Team Qualifications, Capabilities and Resources
  5. Budget and Cost Effectiveness
  6. Funds Spent in California (Attachment 7- Budget)
  7. Match Funding

Provide enough 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 1 items 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

• Task 2 are the 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 Energy Commission)
  • “Products” are not equipment and other items that cannot be delivered and stored at the Energy Commission.
Project Schedule (Attachment 6a)

• Ensure that the task numbers and titles used in the Project Schedule (Attachment 6a) are consistent with the task numbers and titles used in the Scope of Work (Attachment 6).

• All task 1 items 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

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All task products must be scheduled for completion by December 2017 in order to properly close the grant agreement by March 31, 2018.
Budget (Attachment 7)

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

- Category Budget (Funds spent in California and CBE’s)
- Task Budget
- Direct Labor
- Fringe Benefits
- Travel, Equipment, Materials & Misc., and Subcontractors
- Indirect Cost and Profit (Applicant excluded from Profit)
- Rates Summary

The Applicant must submit information on all of the attached budget forms, and this will be deemed the equivalent of a formal Cost Application.
Natural Gas Funds Spent in California

- Funds Spent in California compared to Funds Requested.
- Direct Labor to individuals who pay State income taxes.
- Business Transactions with businesses located in California.

<table>
<thead>
<tr>
<th>Percentage of PIER Natural Gas funds spent in CA (derived from budget attachment “Category Budget”)</th>
<th>Percentage of Possible Points (Out of 15 Points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 60%</td>
<td>20%</td>
</tr>
<tr>
<td>&gt; 70%</td>
<td>40%</td>
</tr>
<tr>
<td>&gt; 80%</td>
<td>60%</td>
</tr>
<tr>
<td>&gt; 90%</td>
<td>80%</td>
</tr>
<tr>
<td>=100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
California Based Entities (CBEs) Preference Point requirements –
See Pages 12 – 13 and Page 33

• Has its headquarters 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.
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 by the CEC Business Meeting.
Commitment Letters (Attachment 11)

Commitment letters are required for:

• **Match funding.** 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.

• **Demonstration site.** Commitment letters to be signed by an authorized representative of each proposed demonstration site.

• **Project partner.** Commitment letters for those making contributions other than match funding or demonstration 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.
Project Match Funds (Optional)

• Match funding includes: cash in hand, equipment, materials, information technology services, travel, subcontractor costs, contractor in-kind labor, advanced practice costs.
  o Refer to Part I, Section E of the Solicitation Manual, pages 7-8 for eligible sources of match funding

• Match funding sources include those from the prime contractor, subcontractors, and demonstration sites (e.g., demonstration site staff services).

• Commitment letters are required from all match fund contributors (see requirements in Attachment 11)
Application Evaluation and Award Process (Part IV Pages 22 – 33)

Consists of Two Stages

Stage 1 – Application Screening (Part IV Section E, page 26)

Stage 2 – Application Scoring (Part IV Section F, pages 27-33)
Stage 1 - Application Screening

Application Screening Process

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 received after the due date and time specified in the “Key Activities Schedule” in Part I of this solicitation.

• Application Form (Attachment 1) not signed.

• Applicant does not address any eligible project group.

• Applicant’s requested funds not within the minimum and maximum range specified in Part I of this solicitation.

• Applicant does not identify a demonstration site.

• Application contains confidential material.

• The applicant has not included a statement or otherwise indicated that it will not accept the terms and conditions, or that acceptance is based on modifications to the terms and conditions.

• Applicant does not include commitment letters (site and/or match).
Stage 2 – Application Scoring
What is the Scoring Scale?

<table>
<thead>
<tr>
<th>% of Possible Points</th>
<th>Interpretation</th>
<th>Explanation for Percentage Points</th>
</tr>
</thead>
</table>
| 0%                   | Not Responsive       | • The response fails to address the criteria.  
                          • The omissions, flaws, or defects are significant and unacceptable. |
| 10-30%               | Minimally Responsive | • The response minimally addresses the criteria.  
                          • The omissions, flaws or defects are significant and unacceptable. |
| 40-60%               | Inadequate           | • 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             | • The response adequately addresses the criteria.  
                          • Any omissions, flaws, or defects are inconsequential and acceptable. |
| 80%                  | Good                 | • 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 omissions, flaws, or defects. Any identified weaknesses are minimal, inconsequential, and acceptable. |
| 90%                  | Excellent            | • 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          | • 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 Page 27 in the Solicitation Manual for table
Stage 2 – Application Scoring
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 Part IV Evaluation and Award Process of the Solicitation Manual and ensure that their application provides a clear and complete response to each scoring criteria in the project narrative.

<table>
<thead>
<tr>
<th>Scoring Criteria (page 28-32)</th>
<th>Maximum Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technical Merit and Need</td>
<td>20</td>
</tr>
<tr>
<td>2. Technical Approach</td>
<td>20</td>
</tr>
<tr>
<td>3. Impacts and Benefits to California IOU Ratepayers</td>
<td>20</td>
</tr>
<tr>
<td>4. Team Qualifications, Capabilities &amp; Resources</td>
<td>10</td>
</tr>
<tr>
<td>5. Budget Cost Effectiveness</td>
<td>10</td>
</tr>
<tr>
<td>6. NG Funds Spent in California</td>
<td>15</td>
</tr>
<tr>
<td>7. Ratio of Direct Labor and Fringe Benefit Rates to Loaded Labor Rates</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td><strong>Minimum points to pass</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>
Grounds to Reject an Application or Award

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
• 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

See Pages 23 - 24 in the Solicitation Manual
Related Information

- Solicitation documents and today’s presentation: www.energy.ca.gov/contracts/pier.html#GFO-15-504

- Sign up for the Listserver by selecting “Opportunity:” www.energy.ca.gov/listservers/

- Information on Research: www.energy.ca.gov/research/

- Information on other PIER Natural Gas solicitations: www.energy.ca.gov/contracts/pier.html
Contacts and Key Dates

Natural Gas Pipeline Safety and Integrity Management Research Grant (GFO-15-504)

Contact: Tonya Heron – Contracts, Grants, and Loans Office
         (916) 654-4484
         Tonya.Heron@energy.ca.gov

Deadline to Submit Written Questions:
   December 28, 2015 at 5:00 pm

Deadline to Submit Applications:
   February 8, 2016 at 3:00 pm