California Energy Commission

Alternative and Renewable Fuel and Vehicle Technology Program

Renewable Hydrogen Transportation Fuel Production Facilities and Systems

GFO-17-602

Pre-Application Workshop
Charles Imbrecht Hearing Room, CEC
January 8, 2018
Introductions

- Welcome
- Housekeeping/Logistics
  - Bathrooms
  - 2nd Floor Snack Shop
  - In case of emergency
Agenda

Introductions and Agenda Overview 2:00 p.m.
Tax Exemptions Overview 2:10 p.m.
Solicitation Overview 2:30 p.m.
• Solicitation purpose, key activities and dates, available funding, maximum funding amount and cap, and grant officer contact information
• Eligible applicants, projects, and project costs
• Application format, required documents, and delivery
• Evaluation process and criteria
• Administration

Questions and answers 3:30 p.m.
Adjourn 4:00 p.m.
Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP)

- AB 8 (Perea, Chapter 401, Statutes of 2013) extends ARFVTP through January 1, 2024.

- Receives up to $100 million per year to:
  - Transform California's transportation market into a diverse collection of alternative fuels and technologies and reduce California's dependence on petroleum.
  - Develop and deploy innovative technologies that transform California’s fuel and vehicle types to help attain the state’s climate change policies.
Commitment to Diversity

The Energy Commission adopted a resolution on April 8, 2015, to firmly commit to:

– Increase participation of women, minority, disabled veteran and LGBT business enterprises in program funding opportunities
– Increase outreach and participation by disadvantaged communities
– Increase diversity in participation at Energy Commission proceedings
– Increase diversity in employment and promotional opportunities
California Energy Commission

Commitment to Diversity

Fairness – Increase funding accessibility to all Californians.

Inclusion – Small businesses make up a significant portion of the U.S. economy.

Job Creation – Projects can create jobs for residents of the under-served communities.

Diversity of Ideas – Great ideas occur in a variety of areas.

Diversity in Communities’ Needs – Needs vary widely from one area to the next (air quality, socioeconomic, etc.).
To design, engineer, construct, install, test, operate, and maintain a facility in California that produces 100 percent renewable hydrogen for on-road fuel cell electric vehicles.
### Key Activities (pg. 7)

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>ACTION DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solicitation Release</td>
<td>December 22, 2017</td>
</tr>
<tr>
<td>Pre-Application Workshop*</td>
<td>January 8, 2018 at 2:00 p.m.</td>
</tr>
<tr>
<td>Deadline for Written Questions*</td>
<td>January 12, 2018</td>
</tr>
<tr>
<td>Anticipated Distribution of Questions/Answers and Addenda (if any) to solicitation</td>
<td>January 19, 2018</td>
</tr>
<tr>
<td><strong>Deadline to Submit Pre-Applications by 5:00 p.m.</strong>*</td>
<td>January 30, 2018</td>
</tr>
<tr>
<td>Anticipated Pre-Application Abstract Results</td>
<td>February 27, 2018</td>
</tr>
<tr>
<td>Deadline for Written Questions*</td>
<td>March 2, 2018</td>
</tr>
<tr>
<td>Anticipated Distribution of Questions/Answers and Addenda (if any) to solicitation</td>
<td>March 9, 2018</td>
</tr>
<tr>
<td><strong>Deadline to Submit Full Applications by 5:00 p.m.</strong>*</td>
<td>March 30, 2018</td>
</tr>
<tr>
<td>Anticipated Notice of Proposed Award Posting Date</td>
<td>May 4, 2018</td>
</tr>
<tr>
<td>Anticipated CEC Business Meeting Date</td>
<td>Upon CEQA Completion</td>
</tr>
</tbody>
</table>
Available Funding (pg. 7-8)

- $3,965,665 million funding is available.
- Projects operational within 36 months will receive full requested funding.

<table>
<thead>
<tr>
<th>Facility Operational Date</th>
<th>Maximum Funding Amount</th>
<th>Maximum Percentage of Total Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 or less months after Business Meeting Approval</td>
<td>$3,965,665</td>
<td>75%</td>
</tr>
<tr>
<td>More than 36 months after Business Meeting Approval</td>
<td>$3,767,000</td>
<td>70%</td>
</tr>
</tbody>
</table>

“Operational” defined on pg. 22
Eligible Applicants (pg. 12-13)

- Businesses
- Public agencies
- Non-profit organizations
- Vehicle and technology entities
- Public-private partnerships
- Academic institutions
Eligible Applicants, continued (pg. 12-13)

- Must have a business presence in California.
- Registered and in good standing with the California Secretary of State.
- Project teams/partners must include:
  - Hydrogen production equipment manufacturer or technology integrator
  - In-state renewable resource producer, collector, or distributor
  - At least one hydrogen refueling station operator
Eligible Projects (pg. 13-15)

- New 100% renewable hydrogen production capacity, using eligible renewable resources
- Supply hydrogen to in-state public hydrogen refueling stations
- Located in California
- Meet the “Minimum Technical Requirements”
Minimum Technical Requirements

(pg. 14-15)

• Production capacity of at least 1,000 kilograms per day of 100% renewable hydrogen

• Use in-state renewable resources

• Technologies must have had successful continuous operation for at least 6 months (pilot/test-scale okay)

• Hydrogen purity must allow stations to meet SAE J2719
Ineligible Projects (pg. 14-15)

- Paper studies, surveys, case studies, or research
- Demonstration of pilot-scale system
- Alternative uses of hydrogen (e.g., energy storage, forklifts, cell towers, off-road vehicles, chemical processing or refining)

- **However**, production capacity in excess of the 1,000 kg/day requirement may serve alternative uses.
Ineligible Projects, continued (pg. 14-15)

- Resale or use of existing hydrogen production capacity, but may co-locate at existing facility
- Repurpose of an existing ARFVTP-funded project or public hydrogen refueling station, but may co-locate
- Hydrogen distribution and transportation without any new hydrogen production
Match Funding Requirements (pg. 15-18)

• Match share funding must include a minimum cash or in-kind contribution equal to at least 25 percent of total allowable project costs

• *Cash* contribution must be equal to at least 10 percent of *Energy Commission funding*
California Energy Commission

Match Funding Requirements, continued (pg. 15-18)

- Examples:

<table>
<thead>
<tr>
<th>Project</th>
<th>Total Project Cost</th>
<th>Minimum Total Match Contribution Required</th>
<th>CEC Funds Requested</th>
<th>Minimum Cash Match Contribution Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>$2 million</td>
<td>$0.5 million</td>
<td>$1.5 million</td>
<td>$0.15 million</td>
</tr>
<tr>
<td>Y</td>
<td>$5.2 million</td>
<td>$1.3 million</td>
<td>$3.9 million</td>
<td>$0.39 million</td>
</tr>
<tr>
<td>Z</td>
<td>$10.4 million</td>
<td>$2.6 million</td>
<td>$3.9 million</td>
<td>$0.39 million</td>
</tr>
</tbody>
</table>
• Cash contributions are defined as expenditures in which a financial transaction has occurred.

• Examples of match which are *not* cash contributions include:
  – Stock options and other investments
  – Donated or loaned labor hours
  – Existing equipment, vehicles, facilities, land, inventory, other property, and fixed assets
Eligible Costs (pg. 18)

- Facility(ies) pre-engineering and design.
- Engineering plans and specifications.
- Building and facility(ies) construction, installation, and/or modifications.
- Assets, materials and supplies, and equipment acquisition
Two-Phase Scoring Process (pg. 20)

- **Pre-Application Abstract Screening**
  - Limited to 3 page project abstract, and a pre-application form
  - To pass, abstracts must meet the screening criteria

- **Full Application Screening and Scoring:**
  - *Full proposals must be consistent with previously submitted and passing pre-proposal abstract.*
Pre-Application Abstract Process and Criteria
California Energy Commission

Pre-Application Screening Criteria

(Pg. 30-31)

- **Pass / No Pass**

<table>
<thead>
<tr>
<th>Administrative Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application MUST be received by due date and time</td>
</tr>
<tr>
<td>Application form MUST be completed and signed by Applicant</td>
</tr>
<tr>
<td>Must agree to the Terms and Conditions, and no confidential information</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant is eligible (pg. 12-13)</td>
</tr>
<tr>
<td>Project is eligible (pg. 13-15)</td>
</tr>
<tr>
<td>Project meets or exceeds the Minimum Technical Requirements (pg. 14-15)</td>
</tr>
</tbody>
</table>
Pre-Proposal Abstract due Jan 30

GFO-17-602
Renewable Hydrogen Transportation Fuel Production Facilities and Systems

Parent Directory

If a PDF doesn't open when you select the link, or if the fillable form isn't functioning:

» Use a different browser, such as Internet Explorer (IE)
» Configure your browser to use Adobe to open PDF files
» Right-click on the link to the form, select "Save as" and save the file to your computer (e.g., save to your desktop), then locate the saved file to open

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<tr>
<td>01A Attach-01A Pre-Application Form.docx</td>
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http://www.energy.ca.gov/contracts/transportation.html#GFO-17-602
Full Application Process and Criteria
Full Application Evaluation (pg. 46)

- Application Evaluation
  - Screening Criteria
    - Administrative
    - Technical
  - Technical Evaluation
Full Application Screening Criteria

(pg.46-47)

• Same as Pre-Application Screening Criteria, except:
  – The full application may contain confidential information for corporate financial records, technology trade secrets, and price components of feedstock purchase agreements and off-take agreements, if separated and clearly labeled as confidential (pg. 33-34).
## Full Application Scoring Criteria

*(pg. 48-53)*

<table>
<thead>
<tr>
<th>Scoring Criteria</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Team Experience and Qualifications</td>
<td>40</td>
</tr>
<tr>
<td>2. Project Readiness</td>
<td>50</td>
</tr>
<tr>
<td>3. Project Implementation</td>
<td>50</td>
</tr>
<tr>
<td>4. Performance</td>
<td>50</td>
</tr>
<tr>
<td>5. Safety Planning</td>
<td>40</td>
</tr>
<tr>
<td>6. Project Budget and Cost Effectiveness</td>
<td>40</td>
</tr>
<tr>
<td>7. Economic and Social Benefits</td>
<td>20</td>
</tr>
<tr>
<td>8. Sustainability</td>
<td>50</td>
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</tbody>
</table>

**TOTAL POSSIBLE POINTS:** 340
# Full Application Scoring Scale (pg.47)

<table>
<thead>
<tr>
<th>% of Possible Points</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>Not Responsive</td>
</tr>
<tr>
<td>10-30%</td>
<td>Minimally Responsive</td>
</tr>
<tr>
<td>40-60%</td>
<td>Inadequate</td>
</tr>
<tr>
<td>70%</td>
<td>Adequate</td>
</tr>
<tr>
<td>75%</td>
<td>Between Adequate and Good</td>
</tr>
<tr>
<td>80%</td>
<td>Good</td>
</tr>
<tr>
<td>85%</td>
<td>Between Good and Excellent</td>
</tr>
<tr>
<td>90%</td>
<td>Excellent</td>
</tr>
<tr>
<td>95%</td>
<td>Between Excellent and Exceptional</td>
</tr>
<tr>
<td>100%</td>
<td>Exceptional</td>
</tr>
</tbody>
</table>
Full Application Technical Evaluation (pg. 47)

- The score for each criterion will be the average of the scores of evaluation committee members.

- An average minimum score of 70 percent (238 points) is required for the application to be eligible for funding.
Full Application Technical Evaluation (pg. 47)

• To be eligible for funding, must also score at least 70 percent individually for:
  – Team Experience and Qualification
  – Project Readiness
  – Project Implementation
  – Performance
  – Safety Planning
Applicants should ensure applications:

- Fully and clearly address each criterion, including all sub-bullets within each criterion.
- Carefully organize information to facilitate review and evaluation.
- Include all assumptions and calculations (as applicable) utilized.
Submittal Process

• Online
  – https://gss.energy.ca.gov/
  – (Attachments requiring signatures may be scanned and submitted in PDF format)

• Hard Copy
  – One hard copy
  – One electronic copy (CD-ROM or USB memory stick)

We encourage filing all documents either all online or all hardcopy. Do not mix hard copy and electronic formats.
Online Filing and Application Process

• The online application system will contain two separate submission dates.
  
  https://gss.energy.ca.gov/

• When logging in for the Pre-Application Phase, applicants will only see the deadline/option for the pre-application.
Online Filing and Confidentiality

• All materials submitted will be treated as confidential until the NOPA is posted.
• No part of the pre-application abstract will remain confidential.
• Only confidential information as part of a clearly-labeled, separated volume of the FULL application will be held confidential for 7 years after the NOPA is posted.
GFO-17-002
Renewable Hydrogen Transportation Fuel Production Facilities and Systems

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<td>01B Attach-01B Full Application Form.docx</td>
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<td>02 Attach-02 Scope of Work Template.doc</td>
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<td>04 Attach-04 Schedule of Products and Due Dates.xlsx</td>
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<td>05 Attach-05 Budget Forms.xls</td>
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<td>07 Attach-07 CEQA Worksheet.doc</td>
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<td>08 Attach-08 Localized Health Impacts.doc</td>
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<td>09 Attach 09-ARV Exhibit C Terms and Conditions.doc</td>
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<td>10 Attach-10-Special Terms and Conditions.docx</td>
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Additional Information

Solicitation Documents, Updates, and Email ListServ

http://www.energy.ca.gov/contracts/transportation.html#GFO-17-602

2017-18 Investment Plan Update

http://docketpublic.energy.ca.gov/PublicDocuments/16-ALT-02/TN217569_20170512T074739_20172018_Investment_Plan_Update_for_the_Alternative_and_Renewab.pdf
Questions and Answers (pg. 9)

- Accepting oral questions during this workshop.

- Accepting written questions until January 12, 2018 at 5:00 p.m.
Contact Information

Please send questions and comments to:

Kevyn Piper, Commission Agreement Officer
California Energy Commission
1516 Ninth Street, MS-18
Sacramento, CA 95814
Telephone: (916) 654-4845
Fax: (916) 654-4423
E-mail: Kevyn.Piper@energy.ca.gov
Adjournment

Thank you and good luck!