



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
  - 2<sup>nd</sup> 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.
<ul style="list-style-type: none"><li>• Solicitation purpose, key activities and dates, available funding, maximum funding amount and cap, and grant officer contact information</li><li>• Eligible applicants, projects, and project costs</li><li>• Application format, required documents, and delivery</li><li>• Evaluation process and criteria</li><li>• Administration</li></ul>	
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



# 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 underserved 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.).



# Solicitation Purpose (pg. 5)

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)

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





## Available Funding (pg. 7-8)

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

Facility Operational Date	Maximum Funding Amount	Maximum Percentage of Total Project Costs
36 or less months after Business Meeting Approval	\$3,965,665	75%
More than 36 months after Business Meeting Approval	\$3,767,000	70%

“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





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

- Examples:

<b>Project</b>	<b>Total Project Cost</b>	<b>Minimum <i>Total Match</i> Contribution Required</b>	<b>CEC Funds Requested</b>	<b>Minimum <i>Cash Match</i> Contribution Required</b>
X	\$2 million	\$0.5 million	\$1.5 million	\$0.15 million
Y	\$5.2 million	\$1.3 million	\$3.9 million	\$0.39 million
Z	\$10.4 million	\$2.6 million	\$3.9 million	\$0.39 million



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

- 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



# Pre-Application Screening Criteria

(pg. 30-31)

- **Pass / No Pass**

Administrative Screening
Application <b>MUST</b> be received by due date and time
Application form <b>MUST</b> be completed and signed by Applicant
Must agree to the Terms and Conditions, and no confidential information
Technical Screening
Applicant is eligible (pg. 12-13)
Project is eligible (pg. 13-15)
Project meets or exceeds the Minimum Technical Requirements (pg. 14-15)



## Pre-Proposal Abstract due Jan 30

Home → contracts → GFO-17-602

### 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

To ensure the most updated form is downloaded, delete your internet browsing history to clear your cache.

Name	last modified <small>Color dates added today</small>	Size
 00 GFO-17-602 Application Manual Renewable Hydrogen.doc	Dec 22, 2017	497 kb
 01A Attach-01A Pre-Application Form.docx	Dec 22, 2017	57.7 kb

<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)

Scoring Criteria	Points
1. Team Experience and Qualifications	40
2. Project Readiness	50
3. Project Implementation	50
4. Performance	50
5. Safety Planning	40
6. Project Budget and Cost Effectiveness	40
7. Economic and Social Benefits	20
8. Sustainability	50
<b>TOTAL POSSIBLE POINTS:</b>	<b>340</b>



## Full Application Scoring Scale (pg.47)

<b>% of Possible Points</b>	<b>Intepretation</b>
0%	Not Responsive
10-30%	Minimally Responsive
40-60%	Inadequate
70%	Adequate
75%	Between Adequate and Good
80%	Good
85%	Between Good and Excellent
90%	Excellent
95%	Between Excellent and Exceptional
100%	Exceptional



# 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



# Evaluation Criteria (pg. 48-53)

- 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.



## Resources

Home → contracts → GFO-17-602

### GFO-17-602

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00 GFO-17-602 Application Manual Renewable Hydrogen.doc	Dec 22, 2017	497 kb
01A Attach-01A Pre-Application Form.docx	Dec 22, 2017	57.7 kb
01B Attach-01B Full Application Form.docx	Dec 22, 2017	60.1 kb
02 Attach-02 Scope of Work Template.doc	Dec 22, 2017	106 kb
03 Attach-03 Scope of Work Instructions.doc	Dec 22, 2017	49 kb
04 Attach-04 Schedule of Products and Due Dates.xlsx	Dec 22, 2017	34.5 kb
05 Attach-05 Budget Forms.xls	Dec 22, 2017	226 kb
06 Attach-06-Contacts List.docx	Dec 22, 2017	22.2 kb
07 Attach-07 CEQA Worksheet.doc	Dec 22, 2017	107 kb
08 Attach-08 Localized Health Impacts.doc	Dec 22, 2017	29 kb
09 Attach 09-ARV Exhibit C Terms and Conditions.doc	Dec 22, 2017	156 kb
10 Attach-10-Special Terms and Conditions.docx	Dec 22, 2017	23.9 kb



# 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](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:

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California Energy Commission

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# Adjournment

Thank you and good luck!