

DOCKETED

Docket Number:	22-TRAN-01
Project Title:	Zero and Near Zero Carbon Fuel Production and Supply Funding Concepts
TN #:	248898
Document Title:	Presentation - GFO-22-608 Pre-Application Workshop - Ultra-Low-Carbon Fuel
Description:	N/A
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GFO-22-608 Pre-Application Workshop

Ultra-Low-Carbon Fuel: Demonstration- and Commercial-Scale Production Facilities Utilizing Forest Biomass

Taiying Zhang, PhD and Hieu Nguyen
Fuels and Transportation Division
February 23, 2023 | 10:00 AM



Workshop Agenda

- 10:00 Introduction and Housekeeping
- 10:10 Staff Presentation
 - Solicitation Overview
 - Application Components
 - Application Evaluation
 - Application Submittal
 - Next Steps
- 11:10 Public Questions and Answers
- 11:30 Adjourn



Housekeeping

- Workshop is being recorded.
- Grant Funding Opportunity webpage: https://www.energy.ca.gov/solicitations/2023-02/ultra-low-carbon-fuel-demonstration-and-commercial-scale-production?auHash=Fg_BISHBDuhM27KxKdQbekrca9HAtqTn_440VKYevGU
- Virtual Participation through Zoom
 - Raise Hand or Q&A feature
 - Telephone participants dial *9 to raise your hand
- Written Questions to Commission Agreement Officer:
Kevyn Piper, kevyn.piper@energy.ca.gov
Subject: GFO-22-608 Pre-Application Workshop
Deadline: **March 2, 2023 by 5:00 PM**



Commitment to Diversity

The CEC adopted a resolution strengthening its commitment to diversity in our funding programs. The CEC continues to encourage disadvantaged and underrepresented businesses and communities to engage in and benefit from our many programs.

To meet this commitment, CEC staff conducts outreach efforts and activities to:

- Engage with disadvantaged and underrepresented groups throughout the state.
- Notify potential new applicants about the CEC's funding opportunities.
- Assist applicants in understanding how to apply for funding from the CEC's programs.
- Survey participants to measure progress in diversity outreach efforts.



Diversity Survey



Scan the code on a phone or tablet with a QR reader to access the survey or visit the link below.

Survey Link: <https://forms.office.com/Pages/ResponsePage.aspx?id=RBI6rPQT9k6NG7qicUgZTtQ-G7GrbGJFmZJPv38ckjJURFpUOVJRNIIBNUNWSEVLR0NOMEk5NFPSC4u>

One Minute Survey

The information supplied will be used for public reporting purposes to display anonymous overall attendance of diverse groups.

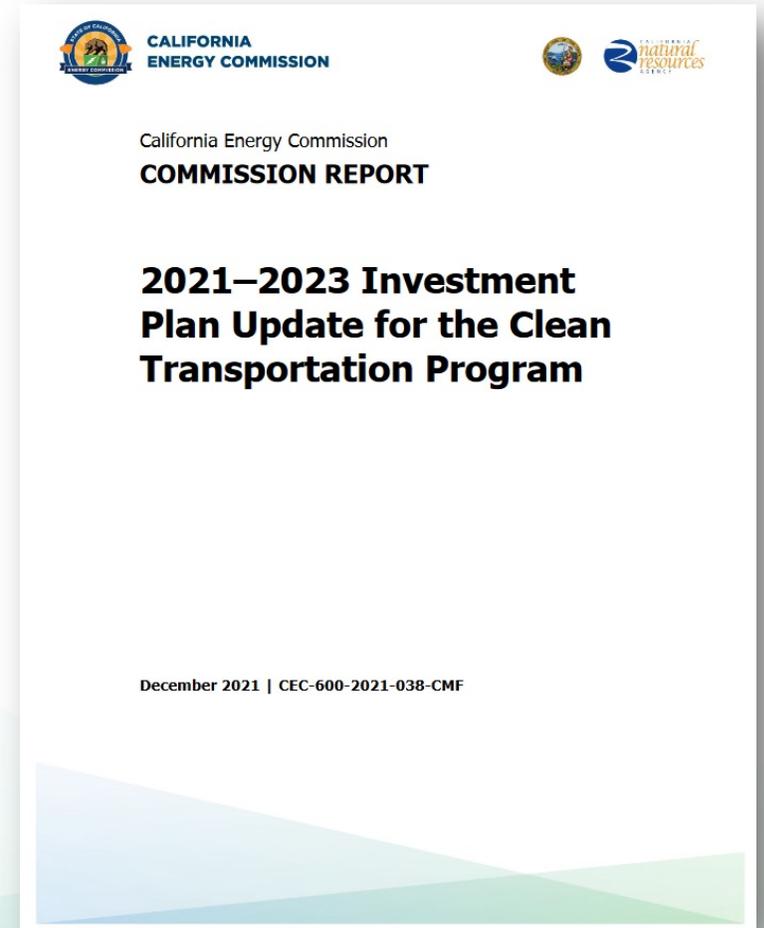
Zoom Participants, please use the link in the chat to access the survey or scan the QR code on the left of the screen with a phone or tablet to access the survey.

Survey will be closed at the end of the day.



Clean Transportation Program

- Established in 2007 by Assembly Bill 118 (2007).
- Extended to January 1, 2024 by Assembly Bill 8 (2013).
- Provides approximately \$95 million of funding per year through 2023.
- Investment Plan determines funding allocations across various categories.
- “...to develop and deploy innovative technologies that transform California’s fuel and vehicle types to help attain the state’s climate change policies.”





Solicitation Overview

Ultra-Low-Carbon Fuel: Demonstration- and Commercial-Scale
Production Facilities Utilizing Forest Biomass

GFO-22-608



Purpose of GFO-22-608

- Support ultra-low-carbon fuel in two funding categories: demonstration-scale and commercial-scale production facilities utilizing forest biomass.
- Reduce greenhouse gas (GHG) emissions and decrease air pollution.
- Prevent wildfires.
- Contribute to California's climate change and clean air goals.

GRANT FUNDING OPPORTUNITY

Clean Transportation Program

Ultra-Low-Carbon Fuel: Demonstration- and
Commercial-Scale Production Facilities
Utilizing Forest Biomass



GFO-22-608
<https://www.energy.ca.gov/funding-opportunities/solicitations>
State of California
California Energy Commission
February 2023



Key Activities and Dates

ACTIVITY	ACTION DATE
Solicitation Released	February 3, 2023
Pre-Application Workshop at 10:00 a.m.	February 23, 2023
Deadline for Written Questions by 5:00 p.m.	March 2, 2023
Anticipated Distribution of Questions/Answers	Week of March 26, 2023
Deadline to Submit Applications by 11:59 p.m.	April 27, 2023
Anticipated Notice of Proposed Awards Posting	June 2023
Anticipated CEC Business Meeting	September 2023



Available Funding & Minimum/Maximum Award Amounts

- Total Available Funding: \$9 million
- Minimum Award: \$1 million per project
- Maximum Award:

Project Category	Project Subcategory	Maximum Award Amount
Category 1	Demonstration-Scale Fuel Production	50 percent of total project costs or \$3.0 million, whichever is less
Category 2	Commercial-Scale Fuel Production: Expansion of an Existing Facility	50 percent of total project costs or \$4.0 million, whichever is less
Category 2	Commercial-Scale Fuel Production: New Facility	50 percent of total project costs or \$5.0 million, whichever is less



Eligible Applicants

- Open to all public and private entities.
- Business presence in California.
- Agree to CEC's Terms and Conditions.
- Registered and in good standing with the California Secretary of State, <https://www.sos.ca.gov>



Project Requirements: General

- Project located in California.
- Reduce GHG emissions from on-road motor vehicles through the produced fuel's use as a transportation fuel.
- Use at least 60 percent or more of forest biomass as the primary feedstock.
- Two project categories:
 - Demonstration Scale
 - Commercial Scale



Project Requirements: Demonstration

A project under this category:

- Utilizes at least 2.0 dry tons of feedstock per day with at least 60 percent or more from forest biomass.
- Must have a primary fuel production technology that has been demonstrated at a technology readiness level (TRL) of 7.

TRL is based on U.S. Department of Energy's [Technology Readiness Assessment Guide](https://www.directives.doe.gov/directives-documents/400-series/0413.3-EGuide-04-admchg1/@@images/file), available at: <https://www.directives.doe.gov/directives-documents/400-series/0413.3-EGuide-04-admchg1/@@images/file>



Project Requirements: Commercial, New Facility

A project under this subcategory:

- Constructs and operates a new, ultra-low-carbon fuel production facility.
- Produces at least 1.0 million Diesel Gallon Equivalents (DGE) per year of eligible fuel for on-road transportation use.
- If located at an existing site, must be implemented as a stand-alone facility and be able to operate independently of the currently used fuel production technology.
- Demonstrated at a TRL of 8 to 9.



Project Requirements: Commercial, Expansion of an Existing Facility

A project under this subcategory:

- Constructs, modifies or installs equipment to increase production capacity of ultra-low-carbon fuel at an existing fuel production facility.
- Increases production by at least 1.0 million DGE per year of eligible fuel for on-road transportation use.
- Demonstrated at a TRL of 8 to 9.



Eligible Ultra-Low-Carbon Fuels

- Must come from forest biomass
- Eligible fuels include biomethane, diesel substitutes, renewable hydrogen, and electricity for transportation use.
- Other fuels (e.g. ethanol; sustainable aviation fuels; marine fuels) may be produced at the proposed production site; however, CEC will only score and provide funding based on the eligible fuels
- Must produce a fuel with a calculated carbon intensity of 30 grams carbon dioxide equivalent per megajoule (gCO₂e/MJ) or less.



Eligible Feedstocks

- Must use 60 percent or more of forest biomass as the primary feedstock.
- Remaining feedstock composition may be other waste or woody biomass including, but are not limited to the following:
 - Agricultural crops
 - Agricultural waste and residues
 - Landscape and right-of-way tree trimmings
 - Wood waste from timbering operations
 - Mill residues that result from milling lumber(...more examples on Page 9)



Eligible Project Costs

Costs incurred for the following activities are eligible for CEC reimbursement or as the Applicant's match share:

- Facility pre-engineering and design
- Engineering plans and specifications
- Facility construction, modifications, and/or commissioning
- Asset and/or equipment acquisition

(....complete list on Page 10)



Match Funding Requirements

- Minimum 50 percent total match share of the total allowable project costs.
- Must include minimum cash match of at least 50 percent of CEC funding.
- Disclose source(s) of match share.



Application Components

Ultra-Low-Carbon Fuel: Demonstration- and Commercial-Scale
Production Facilities Utilizing Forest Biomass

GFO-22-608



Application Organization

Item	Attachment Number (if applicable)	Action Needed by Applicant
Application Form	Attachment 01	Complete form
Table of Contents	N/A	Create document
Executive Summary	N/A	Create document
Project Narrative	N/A	Create document
Scope of Work (SOW)	Attachment 02. See also SOW Instructions in Attachment 03.	Complete document
Schedule of Products and Due Dates	Attachment 04	Complete document
Project Team Resumes	N/A	Create document
Previous Work Products (Optional)	N/A	Create document
Budget Forms	Attachment 05	Complete form
Contact List	Attachment 06	Complete form
Letters of Support/Commitment	N/A	Create document
CEQA Worksheet	Attachment 07	Complete document
Photographic Evidence of the Proposed Project Location	N/A	Create document
Localized Health Impacts Information Form	Attachment 08	Complete form
Past Performance Reference Form(s)	Attachment 10	Complete form
Calculation Table	Attachment 11	Complete form
Confidential Volume (if applicable, see Section III.D)	Attachment 12	Create document



Project Narrative

- Must create and submit a Project Narrative.
- Respond to each scoring criterion described in the Evaluation Criteria (pp. 40-44).
- Include a Table of Contents.
- Limit 30 pages, 11-point font, single-spaced, and a blank line between paragraphs.



ECAMS Agreement Resources

- Energy Commission Agreement Management System (ECAMS)
- Streamlined Terms and Conditions
- Resources, Budget guidance, and training tools are available at: <https://www.energy.ca.gov/funding-opportunities/funding-resources/ecams-resources>.

The screenshot shows the California Energy Commission website. The main heading is "ECAMS Resources (FOR ECAMS AGREEMENTS ONLY)". Below this, a paragraph states: "The Energy Commission Agreement Management System (ECAMS) is being developed to support the administrative tasks required for grant recipients. On this page, you will find guides, forms, templates, and other resources to assist project administration. **These resources are currently applicable ONLY to grant agreements that have signed ECAMS-compliant Terms and Conditions.**"

On the right side, there are three sections: "FUNDING RESOURCES" with a link to "ECAMS Resources (For ECAMS Agreements Only)", "CONTACT" with a link to "ECAMS Support", and "RELATED LINKS" with a link to "Funding Opportunities".

At the bottom of the page, there is a table with two rows:

Resources	+
Budget Category Guidance	+

Source: CEC [ECAMS Resources](#)



California Environmental Quality Act (Attachment 7)

- Encumbrance Deadline: June 30, 2025
- CEQA compliance must be completed before agreements for awarded projects are executed.
- Earlier is better.



Past Performance Reference Form (Attachment 10)

- Must complete Attachment 10 to provide references for:
 - Agreements with the CEC in the last 10 years.
 - The five most recent executed agreements with other public agencies.
- Effective date: January 1, 2013 to the present.
- Complete a separate Past Performance Reference Form for each agreement.
- Include contact information. References may be contacted by CEC staff.
- If no active or prior agreement(s) with the CEC, Applicants must still complete and submit a separate Past Performance Reference Form stating “No active or prior agreement(s)” on the form.

Attachment 10
GFO-21-605
PAST PERFORMANCE REFERENCE FORM

Provide references for CEC agreements (e.g., contracts, grants, or loans) received by the Applicant in the last 10 years and the 5 most recent agreements with other public agencies within the last 10 years to verify Applicant's past performance. Each reference must include a contact person name and phone number (or email address). If contacted by California Energy Commission staff, references should be able to speak to Applicant's ability to successfully complete projects in a timely manner.

In response to Section III.F.4.A, Team Experience and Qualifications, if the team's experience and qualifications includes a specific project(s) under current or prior agreements with public funding (e.g., contract, grant, or loan), the Applicant must also submit a Past Performance Reference Form(s) for the project(s), even if the team member is not the primary Applicant.

Applicants should fill out a separate Past Performance Reference Form for each reference.

Reference Contact Information	
Name of Organization	
Street Address	
City, State, and Zip Code	
Contact Name	
Phone Number	() -
E-mail Address	

Project Information	
Project Title	
Agreement Number (or other unique identifier)	

1. For projects that did not complete (or timely complete) project objectives): Describe the challenges faced, what led to those challenges and indicate whether those challenges were within the Applicant's control.
(Answer)
2. Describe any severe audit findings and how they were ultimately addressed and resolved.
(Answer)
3. Describe the final outcome of the project.
(Answer)

Attachment 10
March 2022

Page 1 of 2

GFO-21-605
Manufacturing Grant Funding
Opportunity



Past Performance Reference Form (Attachment 10), continued

Severe Performance Issues:

- Disclose any severe performance issues in the Past Performance Reference Form or risk disqualification.
- Section IV.A.4 (pp 36-37) of solicitation manual lists examples of severe performance issues.
- Include contact information. References may be contacted by CEC staff.
- Use the date of the event (e.g., audit report date, settlement agreement date) dating back to January 1, 2013.



Confidential Information (Attachment 12)

- Sections of the **Business Plan** may be provided as confidential information:
 - Corporate financial records
 - Technology trade secrets
 - Price components of feedstock and/or off-take agreements
- Confidential material must meet the requirements listed in Section III.D of the manual or risk disqualification.
- Must be ***separated, clearly-labeled volume of the Application as Attachment 12.***



Application Evaluation

Ultra-Low-Carbon Fuel: Demonstration- and Commercial-Scale
Production Facilities Utilizing Forest Biomass

GFO-22-608



Award Methodology

- Must pass administrative and technical screening.
- Highest scoring application with a passing score within each project category (i.e., demonstration- or commercial-scale) will be recommended for funding, in order of their overall application score.
- Remaining funds will then be allocated to the next overall highest scoring application(s) with a passing score, regardless of the project category, in ranked order until all funds available under this solicitation are exhausted.



Application Screening Process

1. Administrative Screening Criteria (Pass/Fail)

- The application is received by the date and time specified.
- The Applicant provides the required authorizations and certifications
- The Applicant has not included a statement that is contrary to the required authorizations and certifications.
- The Application does not contain confidential information, or any portion marked confidential, except for information submitted in accordance with Section III.D, separated and clearly labeled as confidential.



Application Screening Process, continued

2. Technical Screening Criteria (Pass/Fail)

- The Applicant is an eligible Applicant as specified in Section II.A of this solicitation.
- The proposed project is an eligible project as specified in Section II.B of this solicitation.
- The proposed project meets the minimum match share requirement.
- The Applicant passes the past performance screening criterion.



Technical Evaluation & Scoring

- **Minimum passing scores for three criteria and total: 70 percent/points**
- Applicants should ensure applications:
 - Address each criterion
 - Organize information in unambiguous detail to facilitate review and evaluation
 - Include assumptions and calculations (as applicable)
 - Project Narrative does NOT exceed 30 pages.

Scoring Criteria	Possible Points	Minimum passing scores
Project Team Qualifications	10	7
Business Plan (Technology, Marketing, Financial Plans)	35	24.5
Project Readiness and Implementation	20	14
Project Budget and Cost Effectiveness	15	
Project Benefits and Co-Benefits	20	
TOTAL POSSIBLE	100	70



Application Submittal

Ultra-Low-Carbon Fuel: Demonstration- and Commercial-Scale
Production Facilities Utilizing Forest Biomass

GFO-22-608



Application Submittal

- The only method of submission is by digital delivery through CEC's Grant Solicitation System (GSS), available at <https://gss.energy.ca.gov/>.
- Electronic application must be submitted as individual documents in Microsoft Word (.doc, .docx) and Excel (.xls, .xlsx) formats.
- Digital Signatures are accepted.
- Hard copy submittals are **NOT** accepted.
- First-time users must register as a new user to access system.
- When you receive the confirmation email from the GSS, verify that all documents in your application package were successfully received.

A screenshot of the California Energy Commission's Grants Solicitation System (GSS) website. The page features a header with the CEC logo and navigation links. A prominent "Important Information" box at the top states that users must update their passwords due to a new policy. Below this, the "Grants Solicitation System" section contains a "Log In" form with fields for "Email" and "Password", a "Sign In" button, and a "Forgot your password?" link. At the bottom of the form, there is a "Don't have an account?" link and a "Register as a New User" button.



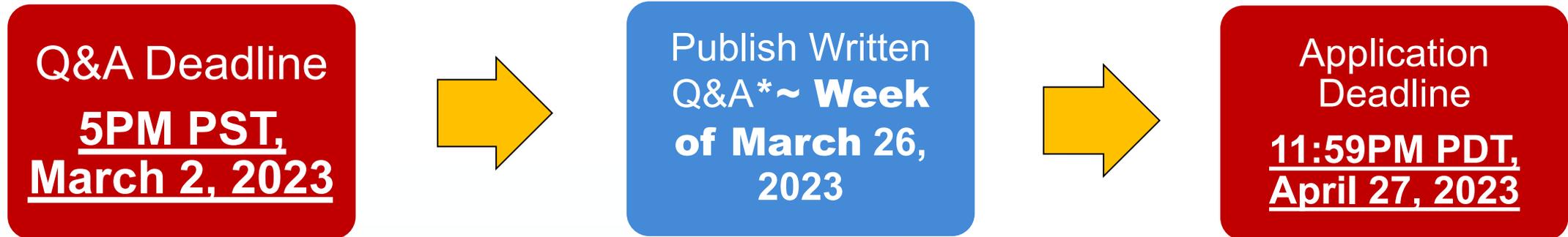
Next Steps

Ultra-Low-Carbon Fuel: Demonstration- and Commercial-Scale
Production Facilities Utilizing Forest Biomass

GFO-22-608



Next Steps



*Updates will be posted at the Grant Funding Opportunity's webpage:

https://www.energy.ca.gov/solicitations/2023-02/ultra-low-carbon-fuel-demonstration-and-commercial-scale-production?auHash=Fg_BISHBDuhM27KxKdQbekrca9HAtqTn_440VKYevGU



Key Activities and Dates

ACTIVITY	ACTION DATE
Solicitation Released	February 3, 2023
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Deadline for Written Questions by 5:00 p.m.	March 2, 2023
Anticipated Distribution of Questions/Answers	Week of March 26, 2023
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Anticipated Notice of Proposed Awards Posting	June 2023
Anticipated CEC Business Meeting	September 2023



Questions and Answers

- Please use the raise hand function in Zoom if you'd like to ask your question.
 - Zoom Phone controls:
 - *9 - Raise hand.
 - *6 - Toggle mute/unmute.
- You may also use the Q&A function in Zoom to type your question.
- We will answer verbal questions first, then will respond to questions in the Q&A chat.
- Please introduce yourself by stating your name and affiliation.
- Keep questions under 3 minutes to allow time for others.
- Note that our official response will be given in writing and posted on the GFO webpage the week of March 26th, 2023.
- E-mail written questions to kevyn.piper@energy.ca.gov by no later than

March 2, 2023 by 5:00 PM Pacific Time.



Written Questions

E-mail written questions related to GFO-22-608 to:

Kevyn Piper

CEC Commission Agreement Officer

E-mail: kevyn.piper@energy.ca.gov

Subject Line: "GFO-22-608 Pre-Application Workshop"

All questions due by 5:00 PM on March 2, 2023



Thank you for participating!

**Applications are due
April 27, 2023, by 11:59 PM**