



**CALIFORNIA
ENERGY COMMISSION**



**California Energy Commission
September 10, 2025 Business Meeting
Backup Materials for FirstElement Fuel Inc.**

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution
2. Grant Request Form
3. Scope of Work

[PROPOSED]

RESOLUTION NO: 25-0910-XX

STATE OF CALIFORNIA

**STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

RESOLUTION: FirstElement Fuel Inc.

RESOLVED, that the State Energy Resources Conservation and Development Commission (CEC) adopts the staff CEQA findings contained in the Agreement or Amendment Request Form (as applicable); and

RESOLVED, that the CEC approves agreement ARV-25-001 with FirstElement Fuel Inc. for a \$1,500,000 grant. This project will accelerate the development of three light-duty hydrogen refueling stations in San Bernardino, Buena Park, and Riverside by supplementing an existing agreement where progress has stalled due to cost constraints; and

FURTHER BE IT RESOLVED, that the Executive Director or their designee shall execute the same on behalf of the CEC.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the CEC held on September 10, 2025.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

Kim Todd
Secretariat



GRANT REQUEST FORM (GRF)

A. New Agreement Number

IMPORTANT: New Agreement # to be completed by Contracts, Grants, and Loans Office.

New Agreement Number: ARV-25-001

B. Division Information

1. Division Name: Fuels and Transportation
2. Agreement Manager: Mark Johnson
3. MS-6
4. Phone Number: (916) 314-0925

C. Recipient's Information

1. Recipient's Legal Name: FirstElement Fuel Inc.
2. Federal ID Number: 46-4260718

D. Title of Project

Title of project: Light-Duty Hydrogen Infrastructure Build-Out

E. Term and Amount

1. Start Date: 9/10/2025
2. End Date: 9/29/2028
3. Amount: \$1,500,000

F. Business Meeting Information

1. Are the ARFVTP agreements \$75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 9/10/2025
3. Consent or Discussion? Discussion
4. Business Meeting Presenter Name: Mark Johnson
5. Time Needed for Business Meeting: 5 minutes.
6. The email subscription topic is: Clean Transportation Program

Agenda Item Subject and Description:

FirstElement Fuel Inc. Proposed resolution approving agreement ARV-25-001 with FirstElement Fuel Inc. for a \$1,500,000 grant, and adopting staff's recommendation that this action is exempt from CEQA. This project will accelerate the development of three light-duty hydrogen refueling stations in San Bernardino, Buena Park, and Riverside. (Clean Transportation Program Funding) Contact: Mark Johnson (Staff Presentation: 5 minutes)

G. California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?

Yes

If yes, skip to question 2.

If no, complete the following (PRC 21065 and 14 CCR 15378) and explain why Agreement is not considered a "Project": N/A

Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because: N/A



2. If Agreement is considered a “Project” under CEQA answer the following questions.

a) Agreement **IS** exempt?

Yes

Statutory Exemption?

No

If yes, list PRC and/or CCR section number(s) and separate each with a comma. If no, enter “None” and go to the next question.

PRC section number: None

CCR section number: None

Categorical Exemption?

Yes

If yes, list CCR section number(s) and separate each with a comma. If no, enter “None” and go to the next question.

CCR section number: Cal. Code Regs., tit. 14, sections 15301, 15303, 15304

The project is to develop hydrogen refueling stations by adding hydrogen storage, compression, and dispensing equipment with an estimated maximum footprint of 500 square feet and trenching of 50 to 150 feet at existing retail gasoline stations.

Hydrogen storage tanks and a hydrogen dispenser will be installed at the existing gas stations. The hydrogen dispensers will dispense at 700 bar. Control valves will be pneumatically operated. All control valves fail in the safe direction (closed) after loss of utility power or instrument gas supply. All system alarms and shutdowns are displayed on the control panel face. Critical alarms are hard wired in addition to being connected through the Programmable Logic Controller. This adds an extra layer of safety to the system.

Cal. Code Regs., tit. 14, sect. 15301 provides that projects which consist of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, and which involve negligible or no expansion of use beyond that existing at the time of the lead agency’s determination, are categorically exempt from the provisions of the California Environmental Quality Act. The proposed project adds equipment to existing gasoline stations that covers an area which is approximately 500 square feet, with an excavation area of no more than 1,000 square feet. This square footage is less than that specified in one example provided in the Regulations (i.e., 14 C.C.R. § 15301(e)) of a minor addition to existing structures. Because the proposed sites are existing gas stations, the proposed addition of hydrogen refueling involves negligible expansion of existing or former use, and the square footage of equipment installation is relatively small, the project falls within section 15301 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, sect. 15303 provides that projects which consist of construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure, are categorically exempt from the provisions of the California Environmental Quality Act. The proposed project



consists of installation of small new equipment, including hydrogen storage, compression, and dispensing equipment, at each site. Therefore, the proposed project falls within section 15303 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, sect. 15304 provides that projects which consist of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes, are categorically exempt from the provisions of the California Environmental Quality Act. For the installation of the equipment in this project, there will be up to 150 feet of trenching to connect storage and compression equipment to dispensers. No trees will be removed, and the surface will be restored. This reflects the example given in section 15304(f). Therefore, the proposed project falls within section 15304 and will not have a significant effect on the environment.

The project does not involve impacts on any particularly sensitive environment; will not impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies; does not involve any cumulative impacts of successive projects of the same type in the same place that might be considered significant; does not involve any unusual circumstances that might have a significant effect on the environment; will not result in damage to any scenic resources within a highway officially designated as a state scenic highway, none of the sites are included on any list compiled pursuant to Government Code section 65962.5, and the project will not cause a substantial adverse change in the significance of a historical resource. Therefore, none of the exceptions to exemptions listed in CEQA Guidelines section 15300.2 apply to this project and this project will not have a significant effect on the environment.

Common Sense Exemption? 14 CCR 15061 (b) (3)

No

If yes, explain reason why Agreement is exempt under the above section. If no, enter "Not applicable" and go to the next section.

Not Applicable

b) Agreement **IS NOT** exempt.

IMPORTANT: consult with the legal office to determine next steps.

No

If yes, answer yes or no to all that applies. If no, list all as "no" and "None" as "yes".

| Additional Documents | Applies |
|--|---------|
| Initial Study | No |
| Negative Declaration | No |
| Mitigated Negative Declaration | No |
| Environmental Impact Report | No |
| Statement of Overriding Considerations | No |
| None | Yes |



H. Is this project considered “Infrastructure”?

Yes

I. Subcontractors

List all Subcontractors listed in the Budget (s) (major and minor). Insert additional rows if needed. If no subcontractors to report, enter “No subcontractors to report” and “0” to funds.

Delete any unused rows from the table

| Subcontractor Legal Company Name | CEC Funds | Match Funds |
|----------------------------------|-----------|-------------|
| No subcontractors to report. | \$ 0 | \$0 |

J. Vendors and Sellers for Equipment and Materials/Miscellaneous

List all Vendors and Sellers listed in Budget(s) for Equipment and Materials/Miscellaneous. Insert additional rows if needed. If no vendors or sellers to report, enter “No vendors or sellers to report” and “0” to funds. **Delete** any unused rows from the table.

| Vendor/Seller Legal Company Name | CEC Funds | Match Funds |
|----------------------------------|-------------|-------------|
| Bosch Rexroth Corporation | \$1,500,000 | \$667,683 |

K. Key Partners

List all key partner(s). Insert additional rows if needed. If no key partners to report, enter “No key partners to report.” **Delete** any unused rows from the table.

| Key Partner Legal Company Name |
|--------------------------------|
| No key partners to report |

L. Budget Information

Include all budget information. Insert additional rows if needed. If no budget information to report, enter “N/A” for “Not Applicable” and “0” to Amount. **Delete** any unused rows from the table.

| Funding Source | Funding Year of Appropriation | Budget List Number | Amount |
|----------------|-------------------------------|--------------------|-------------|
| ARFVTF | FY 24/25 | 601.118Q | \$1,500,000 |

TOTAL Amount: \$1,500,000

R&D Program Area: N/A

Explanation for “Other” selection N/A

Reimbursement Contract #: N/A

Federal Agreement #: N/A

M. Recipient’s Contact Information



1. Recipient's Administrator/Officer

Name: Anton Sather

Address: 5281 California Ave. Suite 260

City, State, Zip: Irvine, CA 92617

Phone: (626) 354-1716

E-Mail: anton.sather@firstelementfuel.com

2. Recipient's Project Manager

Name: Matt Miyasato

Address: 5281 California Ave. Suite 260

City, State, Zip: Irvine, CA 92617

Phone: (909) 964-3197

E-Mail: matt.miyasato@firstelementfuel.com

N. Selection Process Used

There are three types of selection process. List the one used for this GRF.

| Selection Process | Additional Information |
|--|------------------------|
| Competitive Solicitation # | GFO-24-601 |
| First Come First Served Solicitation # | Not Applicable |
| Other | Not Applicable |

O. Attached Items

1. List all items that should be attached to this GRF by entering "Yes" or "No".

| Item Number | Item Name | Attached |
|-------------|--|----------|
| 1 | Exhibit A, Scope of Work/Schedule | Yes |
| 2 | Exhibit B, Budget Detail | Yes |
| 3 | CEC 105, Questionnaire for Identifying Conflicts | Yes |
| 4 | Recipient Resolution | Yes |
| 5 | Awardee CEQA Documentation | Yes |

Approved By



STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

Grant Request Form
CEC-270 (Revised 01/2024)

Individuals who approve this form must enter their full name and approval date in the MS Word version.

Agreement Manager: Mark Johnson

Approval Date: 5/8/2025

Office Manager: Elizabeth John

Approval Date: 6/19/2025

Deputy Director: Melanie Vail

Approval Date: 7/31/2025

Exhibit A

SCOPE OF WORK

TECHNICAL TASK LIST

| Task # | CPR | Task Name |
|--------|-----|--|
| 1 | | Administration |
| 2 | X | Development of Three Hydrogen Stations |
| 3 | | Operations and Reliability |
| 4 | | Data Collection and Analysis |
| 5 | | Project Fact Sheet |

KEY NAME LIST

| Task # | Key Personnel | Key Subrecipient(s) | Key Partner(s) |
|--------|---|---------------------|----------------|
| 1 | Matt Miyasato, Jackie Muhich, Anton Sather, Lina Li | | |
| 2 | Matt Miyasato, Jackie Muhich, Lina Li | | |
| 3 | Jackie Muhich, Anton Sather, Lina Li | | |
| 4 | Anton Sather, Lina Li | | |
| 5 | Jackie Muhich, Anton Sather, Lina Li | | |

GLOSSARY

Specific terms and acronyms used throughout this scope of work are defined as follows:

| Term/ Acronym | Definition |
|------------------|---------------|
| AB | Assembly Bill |

| Term/ Acronym | Definition |
|--------------------------|--|
| ADA | Americans with Disabilities Act |
| AHJ | Authority Having Jurisdiction |
| CAM | Commission Agreement Manager |
| CAO | Commission Agreement Officer |
| CEC | California Energy Commission |
| CPR | Critical Project Review |
| CTP | Clean Transportation Program |
| FCEV | Fuel Cell Electric Vehicle |
| FTD | Fuels and Transportation Division |
| GFO | Grant Funding Opportunity |
| HSP | Hydrogen Safety Panel |
| LCFS | Low Carbon Fuel Standard |
| O&M | Operations and maintenance |
| PNNL | Pacific Northwest National Laboratory |
| Preventative maintenance | Maintenance that is performed on physical assets to reduce the chances of equipment failure and unplanned machine downtime |
| Recipient | FirstElement Fuel, Inc. |

Background

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007) created the Clean Transportation Program (CTP) to help achieve California's climate change policies and support projects that reduce greenhouse gas emissions from the transportation sector. AB 126 (Reyes, Chapter 319, Statutes of 2023) re-authorized the CTP through July 1, 2035, and specified that the California Energy Commission (CEC) allocate no less than 15 percent of the moneys appropriated by the Legislature each year to hydrogen refueling stations to support hydrogen vehicles until there is a sufficient network of stations, which includes all types available, until July 1, 2030.

The CTP has an annual budget of approximately \$100 million and provides financial support for projects that, among other goals:

- Develop and deploy zero-emission technology and fuels in the marketplace.
- Produce alternative and renewable low-carbon fuels in California.

- Deploy zero-emission fueling infrastructure, fueling stations, and equipment.
- Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.

On September 20, 2024, the CEC released a Grant Funding Opportunity (GFO) entitled “Light-Duty Hydrogen Infrastructure Build-Out.” This competitive grant solicitation was to fund projects that will provide publicly available light-duty hydrogen refueling stations to enable continued growth of the California fuel cell electric vehicle (FCEV) market and support the advancement of hydrogen refueling station operations and maintenance (O&M) to improve the customer experience. In response to GFO-24-601, the Recipient submitted application #1 which was proposed for funding in the CEC’s Notice of Proposed Awards on May 2, 2025. GFO-24-601 and Recipient’s application are hereby incorporated by reference into this Agreement in their entirety.

In the event of any conflict or inconsistency between the terms of the Solicitation and the terms of the Recipient’s Application, the Solicitation shall control. In the event of any conflict or inconsistency between the Recipient’s Application and the terms of this Agreement, this Agreement shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Solicitation, the terms of this Agreement shall control.

Problem Statement:

California’s hydrogen refueling station roll-out has seen unanticipated delays due to unexpected cost increases for construction and lower Low Carbon Fuel Standard (LCFS) credit prices. LCFS credit prices have been used to support O&M expenses for CEC-funded hydrogen refueling stations during the emerging market phase of California’s hydrogen refueling station roll-out. As a result of the unexpected costs, many existing CEC-funded hydrogen station projects have not started construction.

Goals of the Agreement:

The goal of this Agreement is to reduce the timeline to open three hydrogen refueling stations that were previously awarded to FirstElement Fuel, Inc. under GFO-19-602, “Hydrogen Refueling Infrastructure” and resulted in executed grant agreement number ARV-20-002.

Objectives of the Agreement:

The objectives of this Agreement are for each of the three hydrogen refueling stations funded under this agreement to achieve Open Retail status by March 31, 2027.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement. The Commission Agreement Manager (CAM) shall designate the date and location of this meeting and provide an agenda to the Recipient prior to the meeting.

The CAM shall:

- Send the Recipient the *kick-off meeting agenda*.

The Recipient shall:

- Attend a “Kick-Off” meeting that includes the CAM and may include the Commission Agreement Officer (CAO) and a representative of the CEC Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM to this meeting.
- Provide a *written statement of match share activities* that have occurred after the notice of proposed awards but prior to the execution of the agreement using match funds. If none, provide a statement that no work has been completed using match funds prior to the execution of the agreement. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.
- Provide an *updated Schedule of Products, updated list of match funds, and updated list of permits*.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - Critical Project Review (Task 1.2)
 - Match fund documentation (Task 1.6) No reimbursable work may be done until this documentation is in place.
 - Permit documentation (Task 1.7)
 - Subawards and site host agreements (if applicable) needed to carry out project (Task 1.8)
 - The CAM’s expectations for accomplishing tasks described in the Scope of Work
 - An updated Schedule of Products and Due Dates
 - Monthly Calls (Task 1.4)
 - Quarterly Progress Reports (Task 1.5)
 - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds

- Updated List of Permits
- Written Statement of Match Share Activities

CAM Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

CPRs provide the opportunity for frank discussions between the CEC and the Recipient. The goal of this task is to determine if the project should continue to receive CEC funding to complete this Agreement and to identify any needed modifications to the tasks, products, schedule or budget.

The CAM may schedule CPR meetings as necessary, and meeting costs will be borne by the Recipient.

Meeting participants include the CAM and the Recipient and may include the CAO, the Fuels and Transportation Division (FTD) program lead, other CEC staff and Management as well as other individuals selected by the CAM to provide support to the CEC.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the CEC, but they may take place at another location or remotely.
- Send the Recipient the *CPR meeting agenda and a list of expected participants* in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. Prepare a *schedule for providing the written determination* described below.
- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see section 8 of the Terms and Conditions). If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Lead Commissioner for Transportation for his or her concurrence.
- Provide the Recipient with a *written determination* in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

- Prepare a *CPR Report* for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

CAM Products:

- CPR meeting agenda and a list of expected participants
- Schedule for written determination
- Written determination

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with CEC staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

This meeting will be attended by, at a minimum, the Recipient and the CAM. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the CAM.

The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The CAM will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the CAM about the following Agreement closeout items:

- What to do with any equipment purchased with CEC funds (Options)
- CEC request for specific “generated” data (not already provided in Agreement products)

- Need to document Recipient's disclosure of "subject inventions" developed under the Agreement, if applicable
- "Surviving" Agreement provisions
- Final invoicing and release of retention
- Provide *written documentation of meeting agreements*.
- Prepare a *schedule for completing the closeout activities* for this Agreement.

Products:

- Written documentation of meeting agreements
- Schedule for completing closeout activities

Task 1.4 Monthly Calls

The goal of this task is to have calls at least monthly between CAM and Recipient to verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

The objectives of this task are to verbally summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, to verify match funds are being proportionally spent concurrently or in advance of CEC funds or are being spent in accordance with an approved Match Funding Spending Plan, to form the basis for determining whether invoices are consistent with work performed, and to answer any other questions from the CAM. Monthly calls might not be held on those months when a quarterly progress report is submitted, or the CAM determines that a monthly call is unnecessary.

The CAM shall:

- Schedule monthly calls.
- Provide questions to the Recipient prior to the monthly call.
- Provide call summary notes to Recipient of items discussed during call.

The Recipient shall:

- Review the questions provided by CAM prior to the monthly call
- Provide verbal answers to the CAM during the call.
- Send an *email to CAM concurring with call summary notes*.

Product:

- Email to CAM concurring with call summary notes.

Task 1.5 Quarterly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

The objectives of this task are to summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, and to form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a *Quarterly Progress Report* which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Progress reports are due to the CAM the 10th day of each January, April, July, and October. The Quarterly Progress Report template can be found on the ECAMS Resources webpage available at <https://www.energy.ca.gov/media/4691>.

Product:

- Quarterly Progress Reports

Task 1.6 Identify and Obtain Matching Funds

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the CEC budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds must be identified in writing and the associated commitments obtained before the Recipient can incur any costs for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a *letter* documenting the match funding committed to this Agreement and submit it to the CAM at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the CEC awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the CEC awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
 - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.

- Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a *copy of the letter of match fund commitment* from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the *appropriate information, including but not limited to, a letter of match fund commitment* to the CAM if during the course of the Agreement additional match funds are received.
- Provide the CAM *written notification* within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

Products:

- A letter regarding match funds or stating that no match funds are provided
- Copy(ies) of each match fund commitment letter(s) (if applicable)
- Letter(s) for new match funds (if applicable)
- Written notification that match funds were reduced (if applicable)

Task 1.7 Identify and Obtain Required Permits

The goal of this task is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track.

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the CEC budget for this task will be zero dollars, the Recipient may budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

The Recipient shall:

- Prepare a *letter* documenting the permits required to conduct this Agreement and submit it to the CAM at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies the:
 - Type of permit
 - Name, address and telephone number of the permitting jurisdictions or lead agencies
 - The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, provide the *appropriate information* on each permit and an *updated schedule* to the CAM.
- As permits are obtained, send a *copy of each approved permit* to the CAM.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 working days. Either of these events may trigger actions available to the CEC under this Agreement, such as an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required
- A copy of each final approved permit (if applicable)
- Updated list of permits as they change during the term of the Agreement (if applicable)
- Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)

Task 1.8 Obtain and Execute Subawards and Agreements with Site Hosts

The goal of this task is to ensure quality products and to execute subrecipient and site host agreements, as applicable, required to carry out the tasks under this Agreement

consistent with the Agreement Terms and Conditions and the Recipient's own procurement and contracting policies and procedures.

The Recipient shall:

- Execute and manage subawards and coordinate subrecipient activities.
- Execute and manage site host agreements and ensure the right to use the project site throughout the term of the Agreement, as applicable. A site host agreement is not required if the Recipient is the site host.
- Notify the CEC in writing immediately, but no later than five calendar days, if there is a reasonable likelihood the project site cannot be acquired or can no longer be used for the project.
- Submit a *letter* to the CAM describing the subawards and any site host agreements needed or stating that no subawards or site host agreements are required.
- If requested by the CAM, submit a *draft of each subaward* and any *site host agreement* required to conduct the work under this Agreement to the CAM for review.
- If requested by the CAM, submit a *final copy of each executed subaward* and any *site host agreement*.
- If Recipient intends to add new subrecipients or change subrecipients, then the Recipient shall notify the CAM.

Products:

- Letter describing the subawards and any site host agreements needed, or stating that no subawards or site host agreements are required
- Draft subaward (if requested)
- Final subaward (if requested)
- Draft site host agreement (if requested)
- Final site host agreement (if requested)

TECHNICAL TASKS

TASK 2 DEVELOPMENT OF THREE HYDROGEN STATIONS

The goal of this task is to complete the design, procurement and construction of the hydrogen refueling stations at the following locations:

| Address | City | Zip Code |
|-----------------------|----------------|----------|
| 1930 S. Waterman Ave. | San Bernardino | 92408 |
| 6392 Beach Blvd. | Buena Park | 90621 |

| | | |
|-------------------|-----------|-------|
| 3505 Central Ave. | Riverside | 92506 |
|-------------------|-----------|-------|

Task 2.1 Station Engineering, Equipment Procurement, and Site Installation

The goal of this task is to receive approval to build from the Authority having Jurisdiction (AHJ) and complete construction of each hydrogen refueling station.

The Recipient shall:

- Receive approval to build from AHJ for each hydrogen refueling station within 18 months of CEC approving the station agreement. This is consistent with the executed agreement ARV-20-002 between FEF and CEC, which this agreement is supplementing.
- Submit to the CAM *written notification of AHJ approval to build for each hydrogen refueling station*. This is consistent with the executed agreement ARV-20-002 between FEF and CEC, which this agreement is supplementing.
- Prepare and submit an *equipment list* to the CAM for each hydrogen refueling station, including cost estimates for all components. CAM written approval to proceed with procurement is required. This is consistent with the executed agreement ARV-20-002 between FEF and CEC, which this agreement is supplementing.
- Complete all construction and installation at each hydrogen refueling station. This is consistent with the executed agreement ARV-20-002 between FEF and CEC, which this agreement is supplementing.
- Prepare and submit *written notification that construction and installation is complete* for each hydrogen refueling station to the CAM, which includes *photographs of installed equipment at each hydrogen refueling station*. This is consistent with the executed agreement ARV-20-002 between FEF and CEC, which this agreement is supplementing.

Products:

- Written notification of AHJ approval to build for each hydrogen refueling station
- Equipment list for each hydrogen refueling station
- Written notification that construction and installation is complete for each hydrogen refueling station
- Photographs of installed equipment at each hydrogen refueling station

Task 2.2 Station Commissioning and Operations Start-Up

The goal of this task is to commission each hydrogen refueling station after construction is complete.

The Recipient shall:

- Commission and make operational each hydrogen refueling station.
- Test and verify performance of each hydrogen refueling station.
- Complete all qualification testing required at each hydrogen refueling station.
- Prepare and submit *written notification of each hydrogen refueling station's Open Retail status* to the CAM, which will include the results of the first passing hydrogen quality test.

Products:

- Written notification of each hydrogen refueling station's Open Retail status

[CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]

TASK 3 OPERATIONS AND RELIABILITY

The goal of this task is to operate all hydrogen refueling stations included in this project and to plan for and implement maintenance strategies to achieve excellent station reliability.

The Recipient shall:

- Operate each hydrogen refueling station included in this project and maintain Open Retail status for at least five years.
- Provide an *Operations and Reliability Plan* for the project explaining how 95% uptime at each hydrogen refueling station included in the project will be achieved. The Plan shall include, but is not limited to:
 - Explanation of the staff resources and procedures for conducting O&M.
 - Description of methods for communicating with and providing help to customers.
 - Clear and detailed strategies for achieving 95% station uptime and ensuring customer satisfaction.
 - Description and frequency of preventative or planned maintenance.
 - Response times for various types of unplanned maintenance issues.
- Conduct planned and unplanned maintenance of each hydrogen refueling station included in this project as outlined in the Operations and Reliability Plan.

Without limitation to other rights and remedies which the CEC may have, including but not limited to survival provisions specified in the Terms and Conditions of this agreement, the requirement that the Recipient commit to operating each hydrogen refueling station included in this project for five years from execution of this Agreement, as feasible, and maintain a 95% uptime, shall survive the completion or termination date of this agreement. In addition to other requirements in the Terms and Conditions of this

agreement, all CEC-reimbursable expenditures must be incurred within the Agreement term.

Products:

- Operations and Reliability Plan

TASK 4 DATA COLLECTION AND ANALYSIS

The goal of this task is to collect operational data from the project and to analyze that data for economic and environmental impacts.

The Recipient shall:

- Complete and submit the *NREL Data Collection Tool* (to be provided by the CAM) quarterly for each hydrogen refueling station in the project throughout the project term.
- Complete and submit a *Report of Hydrogen Dispensed* every quarter during the term of this agreement with the percentage of renewable hydrogen dispensed at each hydrogen refueling station in the project, the carbon intensity of the renewable hydrogen, and the Low Carbon Fuel Standard pathway associated with the renewable hydrogen.
- Perform and submit *results of purity testing* using hydrogen collected at the nozzle for each hose at each hydrogen refueling station in the project:
 - Annually during the term of this agreement.
 - At any station when it changes from Retail: Unavailable to Retail: Open.
 - As needed when the hydrogen lines are potentially exposed to contamination due to maintenance or other activity.

Hydrogen purity readings shall be collected according to CCR Title 4 Business Regulations, Division 9 Measurement Standards, Chapter 6 Automotive Products Specifications, Article 8 Specifications for Hydrogen Used in Internal Combustion Engines and Fuel Cells, Sections 4180 and 4181.

- Comply with the Petroleum Industry Information Reporting Act (PIIRA) and complete *CEC Form A15*, found at <https://a15.energy.ca.gov/>, on an annual basis for each hydrogen refueling station in the project. Submit the form to the CEC's PIIRA Data Collection Unit per the instructions on the website.
- Once refueling station becomes operational, submit to the CAM an *Open Retail Station Checklist Form* within 5 business days.
- Collect and report to the CEC:

- The availability of operational fueling nozzles, whether hydrogen is available for refueling at the station, the volume of hydrogen-dispensed, the number of vehicles fueled by a station, and any other data deemed necessary by the CEC to monitor reliability and accessibility of the refueling infrastructure. The data must be measured no less frequently than on a daily basis and reported electronically to the CEC no less frequently than quarterly in *AB 126 Data Reports* delivered with the quarterly reports described in Task 1.5.
- The source and carbon intensity of the hydrogen produced for, or dispensed by, the stations, as measured by the methodology in the LCFS regulation (Subarticle 7 (commencing with Section 95480) of Article 4 of Subchapter 10 of Chapter 1 of Division 3 of Title 17 of the California Code of Regulations). Data must be reported to the CEC annually in a *AB 126 Data Report* specified by the CAM.
- The reporting period begins when the first station in the project becomes open retail, and it ends one year after the final station in the project becomes open retail. Reporting must include all of the open retail stations in the project in each respective quarter.
- For the duration of the project, and for at least 12 months, collect and provide throughput, usage, and operations data from each hydrogen refueling station in the project including, but not limited to:
 - Number, type, date, and location of hydrogen refueling stations installed.
 - Nameplate capacity of the installed equipment kg/day for hydrogen.
 - Number of fueling positions per station.
 - Location type, such as street, parking lot, hotel, restaurant, or shopping center, existing retail gasoline station, etc.
 - Total cost per refueling station, the subsidy from the CEC per refueling station, federal subsidy per refueling station, utility subsidy per refueling station, and privately funded share per refueling station.
 - Number of refueling sessions
 - Average refueling station downtime
 - Average refueling session duration
 - Average kilograms of hydrogen dispensed per refueling session
 - Average retail price of hydrogen
 - Maximum capacity of the new fueling system

- Normal operating hours, and explanations of variations
- Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)
- Expected air emissions reduction, for example:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
- For each hydrogen refueling station in the project, calculate and provide the actual amount of fuel dispensed compared to the maximum capacity of the hydrogen station.
- Identify any current and planned use of renewable energy at the facility.
- Provide data on job creation, economic development, and increased state revenue as a result of the project.
- Provide a quantified estimate of the project's carbon intensity values for life-cycle greenhouse gas emissions.
- Compare any project performance and expectations provided in the proposal to CEC with actual project performance and accomplishments.
- Provide a *Data Collection and Information Analysis Report* that lists and analyzes all the data and information described above, aside from the data submitted in the NREL Data Collection Tool, the A15 form, the purity tests, the Report of Hydrogen Dispensed, and the reliability data to be provided with the Quarterly Progress Report.
- Retention may be withheld under this Agreement until at least 12 months of data collection is provided by the Recipient.

Products:

- Quarterly NREL Data Collection Tool
- Quarterly Report of Hydrogen Dispensed
- Annual and as needed hydrogen purity test results
- Annual CEC A15 form
- Open Retail Station Checklist
- AB 126 Data Reports
- Data Collection and Information Analysis Report
- Calculated amount of fuel dispensed compared to maximum capacity of the hydrogen station (to be included in Quarterly Reports)

TASK 5 PROJECT FACT SHEET

The goal of this task is to develop an initial and final project fact sheet that describes the CEC-funded project and the benefits resulting from the project for the public and key decision makers.

The Recipient shall:

- Prepare an *Initial Project Fact Sheet* at start of the project that describes the project and the expected benefits. Use the format provided by the CAM.
- Prepare a *Final Project Fact Sheet* at the project's conclusion that describes the project, the actual benefits resulting from the project, and lessons learned from implementing the project. Use the format provided by the CAM.
- Provide at least (6) six *High Quality Digital Photographs* (minimum resolution of 1300x500 pixels in landscape ratio) of pre and post technology installation at the project sites or related project photographs.

Products:

- Initial Project Fact Sheet
- Final Project Fact Sheet
- High Quality Digital Photographs