



**CALIFORNIA
ENERGY COMMISSION**



**California Energy Commission
March 13, 2024 Business Meeting
Backup Materials for Battelle Memorial Institute dba Battelle Pacific Northwest
Division**

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

1. Proposed Resolution
2. Contract Amendment Request Form
3. Scope of Work

[PROPOSED]

RESOLUTION NO: 24-0313-03e

STATE OF CALIFORNIA

**STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

RESOLUTION: Battelle Memorial Institute dba Battelle Pacific Northwest Division

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 amendment 4 to agreement 600-15-014 with Battelle Memorial Institute dba Battelle Pacific Northwest Division, manager, and operator of the U.S. Department of Energy's Pacific Northwest National Laboratory (PNNL), for a five-year no-cost time extension, minor changes to the scope of work and revision of the terms and conditions. Under this contract, PNNL's Hydrogen Safety Panel reviews safety plans proposed as part of the CEC hydrogen refueling station awards. This amendment will extend the agreement end date to March 30, 2029, and revise the terms and conditions to align with current Department of General Services contract requirements. Approval of this amendment is contingent upon Legislative approval or non-action regarding a sole source justification letter sent on January 19, 2024; 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 March 13, 2024.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

Kristine Banaag
Secretariat



STATE OF CALIFORNIA

CONTRACT AMENDMENT REQUEST FORM (CARF)

CEC-276 (Revised 01/2024)

CALIFORNIA ENERGY COMMISSION

Original Agreement # 600-15-014 Amendment # 4

Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation	Sebastian Serrato	N/A	916-314-3278

Contractor's Legal Name	Federal ID #
Battelle Memorial Institute dba Battelle Pacific Northwest Division	31-4379427

Revisions: (check all that apply)	Additional Requirements
<input checked="" type="checkbox"/> Term Extension New End Date: 03 / 30 / 2029	Include revised schedule and complete items A, B, C, D, & H below.
<input type="checkbox"/> Budget Augmentation Amendment Amount: \$ 0	Include revised budget and complete items A, B, C, D, E, F, & H below.
<input type="checkbox"/> Budget Reallocation	Include revised budget and complete items A, B, C, D, & H below.
<input checked="" type="checkbox"/> Scope of Work Revision	Include revised scope of work and complete items A, B, C, D, & H below.
<input type="checkbox"/> Change in Project Location or Demonstration Site	Include revised scope of work and complete items A, B, C, D, G, & H below.
<input type="checkbox"/> DVBE Replacement	Include revised scope of work and complete items A, B, C, D, F & H below.
<input type="checkbox"/> Novation/Name Change of Prime Recipient	Include novation documentation and complete items A, B, D, & H below.
<input checked="" type="checkbox"/> Terms and Conditions Modification	Include applicable exhibits with bold/underline/ strikeout and complete items A, B, C, D & H below.

A) Business Meeting Information**Business Meeting approval is not required for the following types of Agreements:**☐ Minor amendments delegated to Executive Director per December 2013 ResolutionProposed Business Meeting Date 03 / 13 / 2024 ☒ Consent ☐ Discussion

Business Meeting Presenter Sebastian Serrato Time Needed: minutes

Please select one list serve. Altfuels (AB118- ARFVTP)

Agenda Item Subject and Description:

Battelle Memorial Institute dba Battelle Pacific Northwest Division. Proposed resolution approving amendment 4 to agreement 600-15-004 with Battelle Memorial Institute dba Battelle Pacific Northwest Division, manager, and operator of the U.S. Department of Energy's Pacific Northwest National Laboratory (PNNL), for a five-year no-cost time



STATE OF CALIFORNIA

CONTRACT AMENDMENT REQUEST FORM (CARF)

CEC-276 (Revised 01/2024)

CALIFORNIA ENERGY COMMISSION

extension, minor changes to the scope of work and revision of the terms and conditions and adopting staff's determination that this action is exempt from CEQA. Under this contract, PNNL's Hydrogen Safety Panel reviews safety plans proposed as part of the CEC hydrogen refueling station awards. This amendment will extend the agreement end date to March 30, 2029, and revise the terms and conditions to align with current Department of General Services contract requirements. Approval of this amendment is contingent upon Legislative approval or non-action regarding a sole source justification letter sent on January 19, 2024. (Clean Transportation Program Funding) Contact: Sebastian Serrato

B) Amendment Justification (For contract amendments only)

☐ Non Competitive Bid (Attach DGS-GSPD-09-007) <https://www.dgs.ca.gov/PD/Forms>

☒ Exempt Select Exemption (see instructions)

Sole Source for Clean Transportation Program pursuant to Health and Safety Code section 44272(j)

C) List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)

Legal Company Name:	Budget
Hydrogen Safety Panel Members (see attached)	\$ 642,666.00
	\$ 0.00
	\$ 0.00

D) List all key partners: (attach additional sheets as necessary)

Legal Company Name:
N/A

E) Budget Information (only include amendment amount information)

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
Funding Source			\$
Funding Source			\$
Funding Source			\$
Funding Source			\$
Funding Source			\$

R&D Program Area: Select Program Area TOTAL: \$

Explanation for "Other" selection

Reimbursement Contract #:

Federal Agreement #:

F) Disabled Veteran Business Enterprise Program (DVBE)

1. ☐ Exempt (Interagency/Other Government Entity)

2. ☐ Meets DVBE Requirements DVBE Amount:\$_____ DVBE %:_____

a) ☐ Contractor is Certified DVBE

**CONTRACT AMENDMENT REQUEST FORM (CARF)**

- b) ☐ Contractor is Subcontracting with a DVBE:
3. ☐ Contractor selected through CMAS or MSA with no DVBE participation
4. ☒ Requesting DVBE Exemption (attach CEC 95)

G) California Environmental Quality Act (CEQA) Compliance

- 1 Is Agreement considered a "Project" under CEQA?
- ☒ Yes (skip to question 2) ☐ No (complete the following (PRC 21065 and 14 CCR 15378)):

Explain why Agreement is not considered a "Project":

Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because .

- 2 If Agreement is considered a "Project" under CEQA:

- c) ☒ Agreement **IS** exempt.
- ☐ Statutory Exemption. List PRC and/or CCR section number:
- ☒ Categorical Exemption. List CCR section number: 14 CCR 15306
- ☒ Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why Agreement is exempt under the above section:

This project involves safety assessments of hydrogen refueling stations. These assessments involve both an evaluation of written hydrogen refueling station safety plans and design reviews as well as on-site safety evaluations to ensure conformance with the written safety plans. This project does not involve any construction, installation of equipment, or similar activities that have potential for resulting in either a direct or indirect physical change in the environment.

Therefore this Agreement is exempt under CEQA Guidelines section 15306 as basic data collection, research and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource, and exempt under CEQA Guidelines section 15061(b)(3), the common sense exemption, because it can be seen with certainty that there is no possibility the activity in question may have a significant effect on the environment.

This project does not involve impacts on any particularly sensitive environment; 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 unusual circumstances that might have a significant effect on the environment; will not result in damage to scenic resources within a highway officially designated as a state scenic highway; the project site is not 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 categorical exemptions listed in CEQA Guidelines section 15300.2 apply to this project and this project will not have a significant effect on the environment.

- d) ☐ Agreement **IS NOT** exempt. (consult with the legal office to determine next steps)

Check all that apply



- ☐ Initial Study
- ☐ Negative Declaration
- ☐ Mitigated Negative Declaration
- ☐ Environmental Impact Report
- ☐ Statement of Overriding Considerations

H) Is this project considered “Infrastructure”?
No

I) The following items should be attached to this CARF (as applicable)

- | | | |
|---|---|--|
| 1. Exhibit A, Scope of Work | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |
| 2. Exhibit B, Budget Detail | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 3. DGS-GSPD-09-007, NCB Request | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 4. CEC 95. DVBE Exemption Request | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 5. CEQA Documentation | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 6. Novation Documentation | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 7. CEC 105, Questionnaire for Identifying Conflicts | | <input checked="" type="checkbox"/> Attached |

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

EXHIBIT A
SCOPE OF WORK
PNNL #68833. CEC #600-15-014

TASK LIST

Task #	Task Name
1	Administrative Tasks
2	Safety Plan Assessments
3	Hydrogen Release and Incident Reporting
4	Annual Safety Evaluations
5	Identification of Project and Stakeholder Learnings
6	Web Postings of Hydrogen Safety Plans
7	Final Report

ACRONYMS

Specific acronyms follow:

Acronym	Definition
ARFVTP	Alternative and Renewable Vehicle and Technology Program
CAM	Commission Agreement Manager
FCEV	Fuel Cell Electric Vehicle
HSP	Hydrogen Safety Panel
Contractor	Pacific Northwest National Laboratory operated by the Battelle Memorial Institute on behalf of the U.S. Department of Energy

BACKGROUND

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007) created the **Clean Transportation Program** ~~Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP)~~. This statute, ~~amended by Assembly Bill 109 (Núñez, Chapter 313, Statutes of 2008) and later by Assembly Bill 8 (Perea, Chapter 401, Statutes of 2013)~~, authorizes the California Energy Commission (Energy Commission) to “develop and deploy innovative technologies that transform California’s fuel and vehicle types to help attain the state’s climate change policies.”

Assembly Bill **126 (Reyes, Chapter 319, Statutes of 2023)** re-authorized the **Clean Transportation Program through July 1, 2035 and specifies that the Energy Commission allocate 15 percent of the funds appropriated by the Legislature to deploy hydrogen fueling stations until there is a sufficient network to support hydrogen vehicles.** 8 extends funding for ARFVTP until January 1, 2024 and specifies that the Energy Commission allocate up to \$20 million per year (or up to 20 percent of each fiscal year’s funds) in funding for hydrogen station development until at least 100 stations are operational. The **Clean Transportation Program** ~~Energy Commission~~ has an annual program budget of approximately \$100 million and provides financial support for projects that:

- **Develop and deploy zero-emission technology and fuels in the marketplace where feasible and near-zero-emission technology and fuels elsewhere.**
- **Produce alternative and renewable low-carbon fuels in California.**

- Deploy zero-emission fuel infrastructure, fueling stations, and equipment where feasible and near-zero-emission fuel infrastructure, fueling stations, and equipment elsewhere.
 - Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.
- ~~Develop and improve alternative and renewable low-carbon fuels;~~
 - ~~Optimize alternative and renewable fuels for existing and developing engine technologies;~~
 - ~~Produce alternative and renewable low-carbon fuels in California;~~
 - ~~Decrease, on a full fuel cycle basis, the overall impact and carbon footprint of alternative and renewable fuels and increase sustainability;~~
 - ~~Expand fuel infrastructure, fueling stations, and equipment;~~
 - ~~Improve light-, medium-, and heavy-duty vehicle technologies;~~
 - ~~Retrofit medium- and heavy-duty on-road and non-road vehicle fleets;~~
 - ~~Expand infrastructure connected with existing fleets, public transit, and transportation corridors; and~~
 - ~~Establish workforce training programs, conduct public education and promotion, and create technology centers.~~

PROBLEM STATEMENT

The Pacific Northwest National Laboratory's (PNNL) Hydrogen Safety Panel (HSP) has done research related to hydrogen refueling station safety, and seeks to apply that research to hydrogen refueling stations under development. Also, the Energy Commission is planning to further prioritize safety under future hydrogen refueling infrastructure solicitations. As a result, grant applicants under future funding solicitations will be required to submit a hydrogen safety plan for each proposed hydrogen refueling station. The HSP has the expertise needed to evaluate and direct safety plan development. The Energy Commission's requirement of safety plans and need for technical expertise in hydrogen safety presents an opportunity for a mutually-beneficial arrangement for the HSP to conduct applied research while advising grant applicants and the Energy Commission.

GOALS OF THE CONTRACT

The Energy Commission seeks to contract with PNNL's HSP to conduct applied research into the safety of materials, equipment, and best practices related to hydrogen refueling stations in California.

OBJECTIVES OF THE CONTRACT

The research includes:

- Evaluation of the safety plans proposed as part of applications for hydrogen stations under GFO-15-605, "Light Duty Vehicle Hydrogen Refueling Infrastructure," and medium- and heavy-duty (MD/HD) hydrogen refueling stations proposed or funded by the Energy Commission under one or more funding solicitations;
- Evaluation of any incident or issue that may pose a safety threat as reported by successful recipients under GFO-15-605; and MD/HD hydrogen refueling station

solicitation(s);

- Site visits to examine the hydrogen stations funded under GFO-15-605; and under MD/HD hydrogen refueling station solicitation(s);
- Telephone interviews with station operators regarding their safety practices and experiences;
- Application of research to assist the Energy Commission with evaluation of safety plans submitted with applications to GFO-15-605 and MD/HD hydrogen refueling station solicitation(s) resulting in station designs which place a greater emphasis on safety being more likely to receive funding from the Energy Commission;
- Provision of feedback to station developers and operators, which will enable those operators and developers to implement improved safety practices as they are discovered and established.
- Publication of the HSP's findings, which will allow ongoing application of this safety research to hydrogen refueling stations in general, not just those funded under GFO-15-605, MD/HD hydrogen refueling station solicitation(s), or located within California.

The tasks outlined in this Scope of Work will apply past safety research of hydrogen refueling stations to upcoming stations through this exempt agreement with the PNNL operated by the Battelle Memorial Institute which manages the HSP. The HSP is comprised of researchers, scientists, and experts who provide recommendations on hydrogen safety issues; assist with identifying safety gaps, best practices and applications of lessons learned; and help integrate safety planning applications to ensure that projects address and incorporate hydrogen and related safety practices.

FORMAT/REPORTING REQUIREMENTS

Deliverables/Reports

When creating reports, the Contractor shall use and follow, unless otherwise instructed in writing by the Commission Agreement Manager (CAM), the latest version of the Consultant Reports Style Manual published on the Energy Commission's web site:

<https://www.energy.ca.gov/funding-opportunities/funding-resources/formatting-reports-and-writing-style-consultants-california>

Each final deliverable shall be delivered as one original, reproducible, 8 ½" by 11", camera-ready master in black ink. Illustrations and graphs shall be sized to fit an 8 ½" by 11" page and readable if printed in black and white.

Electronic File Format

The Contractor shall deliver an electronic copy (CD ROM or memory stick or as otherwise specified by the CAM of the full text in a compatible version of Microsoft Word (.doc).

The following describes the accepted formats of electronic data and documents provided to the Energy Commission as contract deliverables and establishes the computer platforms, operating systems and software versions that will be required to review and approve all software deliverables.

- Data sets shall be in Microsoft (MS) Access or MS Excel file format.
- PC-based text documents shall be in MS Word file format.
- Documents intended for public distribution shall be in PDF file format, with the native

- file format provided as well.
- Project management documents shall be in MS Project file format.

Software Application Development

If this scope of work includes any software application development, including but not limited to databases, websites, models, or modeling tools, contractor shall utilize the following standard Application Architecture components in compatible versions:

- Microsoft ASP.NET framework (version 3.5 and up) Recommend 4.0
- Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5
- Visual Studio.NET (version 2008 and up) Recommend 2010
- C# Programming Language with Presentation (UI), Business Object and Data Layers
- SQL (Structured Query Language)
- Microsoft SQL Server 2008, Stored Procedures Recommend 2008 R2
- Microsoft SQL Reporting Services Recommend 2008 R2
- XML (external interfaces)

Any exceptions to the Software Application Development requirements above must be approved in writing by the Energy Commission Information Technology Services Branch.

ADMINISTRATIVE TASKS

Task 1 – Agreement Management

The goal of this task is to carry out agreement administration.

Task 1.1 Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement.

The Contractor shall:

- Attend a “kick-off” meeting with the CAM, the Energy Commission Contracts Officer, and a representative of the Energy Commission Accounting Office. The meeting will be held via teleconference. The Contractor shall include their Project Manager, Contracts Administrator, Accounting Officer, and others designated by the CAM, as practicable, who are familiar with this agreement and are capable of addressing any issues that may or may not arise in this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting.
- If necessary, prepare an updated Schedule of Deliverables and Due Dates based on the decisions made in the kick-off meeting.

The CAM shall:

- Arrange the meeting including scheduling the date and time.
- Provide an agenda to all potential meeting participants prior to the kick-off meeting.

Deliverables:

- An Updated Schedule of Deliverables (if applicable)

Task 1.2 Invoices

The goal of this task is to ensure invoices reflect the Terms and Conditions.

The Contractor shall:

- Prepare invoices for all reimbursable expenses incurred performing work under this Agreement in compliance with the Exhibit B of the Terms and Conditions of the Agreement. Invoices shall be submitted with the same frequency as progress calls (Task 1.4). Invoices must be submitted to the Energy Commission's Accounting Office.

Deliverables:

- Invoices

Task 1.3 Manage HSP Member Participation

The goal of this task is to ensure quality products, to enforce subcontractor agreement provisions and, in the event of failure of the subcontractor to satisfactorily perform services, recommend solutions to resolve the problem.

The Contractor shall:

- Manage, coordinate and participate in the HSP activities carried out by a variety of "HSP members" to complete this contract. The Energy Commission will assign all work to the Contractor. The Contractor is responsible for the quality of all HSP work, carried out by HSP members and others related to this contract. A variety of HSP members will be subcontractors who will complete the tasks.
- Inform the Energy Commission if the Contractor decides to add new HSP members based on annual HSP membership evaluations that occur within the term of this agreement. If the HSP replaces an HSP member, the Contractor shall notify the CAM who will follow the Energy Commission's process for adding or replacing subcontractors, as needed.

Task 1.4 Monthly Progress Calls and Quarterly Reports

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

The Contractor shall:

- Schedule monthly conference calls to provide project updates and discuss any outstanding issues during the agreement term ~~following two Reporting Periods:~~
 - ~~Reporting Period One: Immediately following the Energy Commission Grant Funding Opportunity (GFO) Release and up to the time of the Web posting of the Energy Commission Notice of Proposed Awards (NOPA) which is estimated to take two months ("Safety Plan Assessments"). This activity comprises at least two conference calls.~~
 - ~~Reporting Period Two: One month after the start of the "Hydrogen Release and Incident Reporting" and "Annual Safety Evaluations", both of which span three years. These activities comprise at least three conference calls.~~
- Prepare and submit a Quarterly Progress Report which summarizes all Agreement activities conducted by the Contractor for the reporting period ~~Reporting Periods One and Two~~, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each Progress Report is due to the

CAM shortly after~~within ten days~~ of the end of the respective reporting periods~~Reporting Period~~. The recommended specifications for each progress report are contained in the terms and conditions of this Agreement.

Deliverables:

- Monthly Progress Conference Calls during the agreement term~~Reporting Periods One and Two, and~~
- Quarterly Progress Reports during the agreement term~~Reporting Periods One and Two.~~

Task 1.5 Final Meeting

The goal of this task is to discuss closeout of this Agreement and review the project.

The Contractor shall:

- Meet with Energy Commission staff prior to the term end date of this Agreement via teleconference. This meeting will be attended by the Contractor Project Manager and the CAM. The CAM will determine any additional appropriate meeting participants, as practicable. The administrative and technical aspects of Agreement closeout will be discussed at the meeting.
- Present findings, conclusions, and recommended next steps (if any) for the Agreement, based on the information included in the Final Report which will index and generally summarize the efficacy of Safety Plans posted on <https://h2tools.org/>.
- Prepare a written document of meeting agreements and unresolved activities.
- Prepare a schedule for completing the closeout activities for this Agreement, based on determinations made within the meeting.

Deliverables:

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

TECHNICAL TASKS

Task 2 - Safety Plan Assessments

The goal of this task is to ensure that applicants to GFO-15-605 and MD/HD hydrogen refueling stations proposed or funded by the Energy Commission under one or more funding solicitations propose projects for funding by the Energy Commission that have adequate Safety Plans according to the HSP's "Safety Planning for Hydrogen and Fuel Cell Projects" presentation, which is based on previous research by the HSP and which is available at:

https://h2tools.org/sites/default/files/Safety_Planning_for_Hydrogen_and_Fuel_Cell_Projects.pdf

The Contractor shall:

- Evaluate, on a first-come first-served basis, at least fifteen Safety Plans for at least fifteen different hydrogen refueling station designs submitted to the Energy

Commission as part of applications to GFO-15-605. Evaluate up to five additional Safety Plans for hydrogen station designs submitted to the Energy Commission as part of MD/HD hydrogen refueling station solicitation(s). Design will differ based on feedstock, pathways, hydrogen source, storage technology, and dispensing technology. Safety Plans will evaluate items including but not limited to organizational safety policies and procedures, experience in hydrogen and fuel cells on the part of the Applicant, operational safety vulnerabilities and risk reduction plans, equipment and mechanical integrity of the proposed station, sufficiency of process and instrumentation diagrams, sufficiency of safety and alarm systems, sufficiency of bill of materials with materials' compatibility, and sufficiency of maintenance, testing, calibration and inspection procedures.

- Provide to the Energy Commission a written assessment of the Safety Plans along with one of the following designations per Safety Plan (a *Written Assessment and Letter Grade Designation*):
 - A. Good,
 - B. Good, but the Applicant should consider the comments and recommendations in this assessment,
 - C. Marginal, but would be good if the Applicant considered the comments and recommendations in this assessment,
 - D. Not much consideration for safety,
 - E. Incomplete but promising (includes promising safety plans and those without much consideration for safety), and
 - F. Incomplete without much consideration for safety.

Deliverables:

- *Written Assessment and Letter Grade Designation* for each Safety Plan reviewed (at least 15).
- *Written Assessment and Letter Grade Designation* for each Safety Plan reviewed (up to five) for awardees of MD/HD hydrogen refueling station solicitation(s).

Task 3 - Hydrogen Release and Incident Reporting

The goal of this task is to evaluate public reports of hydrogen releases and related incidents that occur at hydrogen refueling stations funded under GFO-15-605 and MD/HD hydrogen refueling station solicitation(s).

The Contractor shall:

- Evaluate and explain hydrogen releases and other hydrogen refueling station or ancillary equipment-related incidents for all grant recipients. Evaluate the grant recipients' ensuing experiences based on their reports on hydrogen releases and incidents submitted to the HSP by the Energy Commission staff. The reports submitted to the HSP will be the same reports submitted by hydrogen station providers to the Unified Program Agency in accordance with California Health and Safety Code Section 25510(a): <http://cersapps.calepa.ca.gov/Public/Directory>.
- Guide station operators on posting incident reports and summaries of the evaluation of the releases and incidents to the U.S. Department of Energy (DOE) Hydrogen Lessons Learned (H2LL) database-driven website, which facilitates the sharing of knowledge and other information from actual experiences using and working with

hydrogen: <https://h2tools.org/lessons>.

- When requested by the CAM, the HSP will evaluate information provided by Energy Commission grant recipients on hydrogen releases and other incidents and provide comments and recommendations to the station operator and the CEC.
- Create a “*Report on Hydrogen Incidents*,” which shall summarize the HSP’s evaluation of all releases and incidents annually.

Deliverables:

- ~~An Annual Report on Hydrogen Incidents~~ for each year (2018-20238), **as needed**.

TASK 4 - Annual Safety Evaluations

The goal of this task is to conduct annual safety evaluations of the hydrogen refueling stations funded under GFO-15-605 and MD/HD hydrogen refueling station solicitation(s) for each of the first three years after becoming operational. Stations will be evaluated on conformance with the Safety Plans submitted to the Energy Commission and the HSP’s “Safety Planning for Hydrogen and Fuel Cell Projects”.

The Contractor shall:

- Evaluate the safety of each hydrogen refueling station funded under GFO-15-605 and MD/HD hydrogen refueling station solicitation(s) annually, for three years after the station(s) becomes operational as defined in GFO-15-605. The evaluation will include the stations’ adherence to grant recipients’ initial Safety Plans and any recommendations given by the HSP. Operational status is defined in GFO-15-605 as when a hydrogen refueling station has all of the following characteristics and meets all of the following requirements:
 1. Has a hydrogen fuel supply.
 2. Has an energized utility connection and source of system power.
 3. Has installed all of the hydrogen refueling station/dispenser components identified in the Energy Commission agreement to make the station functional.
 4. Has passed a test for hydrogen quality that meets standards and definitions specified in the California Code of Regulations, 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 (i.e., the most recent version of SAE International J2719).
 5. Has successfully fueled one FCEV with hydrogen.
 6. Dispenses hydrogen at the mandatory H70-T40 (700 bar) and 350 bar (if this optional fueling capability is included in the proposed project).
 7. Is open to the public, meaning that no obstructions or obstacles exist to preclude any individual from entering the station premises.
 8. Has all of the required state, local, county, and city permits to build and to operate.
 9. Meets all of the Minimum Technical Requirements (Section VI) of GFO-15-605.

- Conduct a site visit for each grant recipient whose Safety Plan was originally reviewed by the HSP, during the first year of that station's operationality. Findings from site visits shall be reported to the CAM in a *Safety Evaluation for Year One*, which shall include a list of recommendations for improved safety.
- Conduct annual safety evaluations for each grant recipient whose Safety Plan was originally reviewed by the HSP, via telephone, for the second and third years following a station's operational status. Findings from these evaluations shall be reported to the CAM in *Annual Safety Evaluations for Years Two and Three*, which shall include a list of recommendations for improved safety.
- Conduct one meeting per year with the Energy Commission by teleconference to discuss what was learned from the Annual Safety Evaluations and identify safety issues and gaps requiring remediation by the station owner.
- Immediately notify the station owner and the CAM, in writing, of any safety issues, requiring immediate action found during site visits and evaluation ("*Written Notification of Safety Issues Requiring Immediate Action*").

Deliverables:

- *Safety Evaluation for Year One (on a per project station basis)*
- *Annual Safety Evaluations for Years Two and Three (on a per project station basis)*
- *Written Notification of Safety Issues Requiring Immediate Action*

Task 5 - Identification of Project and Stakeholder Learnings

The goals of this task are to inform the Energy Commission of the results of and learnings from Safety Plan evaluations, incident and station evaluations, and discussions of station evaluations at HSP meetings; and to provide any recommendations on safety management to the Energy Commission.

The Contractor shall:

- Convene the HSP to discuss results and lessons learned from the Safety Plans' implementation, and incident and station reviews conducted in Tasks 3-4.
- Provide a *Written Summary of HSP Meeting and Recommendations* to the Energy Commission of what was discussed by the HSP at the convened meeting, including lessons learned, results of evaluations, and recommendations for safety management. Additional comments and/or recommendations on topics beyond those discussed may be included with the summary.
- Invite Energy Commission staff participation in the HSP meetings that will include identification of project and stakeholder learnings.

Deliverables:

- *Written Summary of HSP Meeting and Recommendations*

Task 6 - Web Postings of Hydrogen Safety Plans

The goal of this task is to make the Hydrogen Safety Plans available to the public.

The Contractor shall:

- Post Safety Plans, as submitted in applications to GFO-15-605, of the hydrogen refueling stations that receive Energy Commission funding under GFO-15-605 to <https://h2tools.org>.
- Post Safety Plans of the hydrogen refueling stations that receive Energy Commission funding under and MD/HD hydrogen refueling station solicitation(s) to <https://h2tools.org>.

Deliverables:

- Posted Safety Plans on the Hydrogen Tools Portal, <https://h2tools.org>.

Task 7 - Final Report

The goal of this task is to provide a final report on the technical activities of this Agreement.

The Contractor shall:

- Develop a *Final Report* which indexes and summarizes the activities under this agreement. The CAM will be allowed to review the *Final Report* and provide comments before it is posted on <https://h2tools.org>.

Deliverables:

- *Final Report*