

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 10/2015)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-17-007 (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Lawrence Vettrano	6	916-654-3933

Recipient's Legal Name	Federal ID Number
Equilon Enterprises LLC (d/b/a Shell Oil Products US)	52-2074528

Title of Project
Shell Hydrogen Retail Stations in Northern California (San Francisco - Mission Street)

Term and Amount	Start Date	End Date	Amount
	8 / 10 / 2017	6 / 30 / 2021	\$ 2,337,500

Business Meeting Information
 ARFVTP agreements \$75K and under delegated to Executive Director.

Proposed Business Meeting Date	8 / 9 / 2017	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
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Business Meeting Presenter	Miki Crowell	Time Needed:	5 minutes
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Please select one list serve. Altfuels (AB118- ARFVTP)

Agenda Item Subject and Description

Proposed resolution approving Agreement ARV-17-007 for a \$2,337,500 grant to develop a hydrogen refueling station at 3550 Mission Street, San Francisco, CA 94110. This station will serve the growing number of hydrogen powered zero emission vehicles deployed in California.



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:
 a) Agreement **IS** exempt. (Attach draft NOE)
 Statutory Exemption. List PRC and/or CCR section number: _____

Categorical Exemption. List CCR section number: _____ Cal. Code Regs., tit. 14, §§ 15301, 15303.

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

Explain reason why Agreement is exempt under the above section:
 .The proposed project will develop a hydrogen refueling station by adding hydrogen storage, compression and dispensing equipment with an estimated maximum footprint of 1,000 square feet and trenching up to 50 feet to an existing retail gasoline station to connect storage and compression equipment to dispensers. Installed storage tanks will hold up to 700 kg of hydrogen. The hydrogen dispenser will dispense at 700 bar.

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 an existing gasoline station that covers an area which is less than 1,000 square feet, with an excavation area of no more than 1,000 square feet. This square footage is far less than that specified in one example provided 14 C.C.R. § 15301(e) of a minor addition to existing structures. The proposed addition of a hydrogen refueling facility will not significantly expand the use beyond that already existing at the gas station, and the square footage of equipment installation is relatively small. Therefore, the project will not have a significant effect on the environment and is categorically exempt under section 15301.

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 on-site storage facilities allowing more than 500 kg of hydrogen storage at 450 bar and 200 kg of high-pressure storage at 900 bar, and compression and dispensing equipment which will be under 1,000 square feet. Therefore, the proposed project will not have a significant effect on the environment and is categorically exempt under section 15303.

b) Agreement **IS NOT** exempt. (Consult with the legal office to determine next steps.)
 Check all that apply
 Initial Study Environmental Impact Report
 Negative Declaration Statement of Overriding Considerations
 Mitigated Negative Declaration

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

Legal Company Name:	Budget
Nel Hydrogen A/S	\$ 2,337,500
	\$ 0
	\$ 0

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

Legal Company Name:
AU Energy

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CALIFORNIA ENERGY COMMISSION



Budget Information			
Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTP	15/16	601.118HH	\$2,337,500
Funding Source			\$
R&D Program Area:	Select Program Area	TOTAL:	\$ 0
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Recipient's Administrator/ Officer				Recipient's Project Manager			
Name:	Wayne Leighty			Name:	Lars Zimmermann		
Address:	Shell New Energies 600 Montgomery Street, Suite 2740			Address:	Shell Deutschland Oil GmbH 600 Montgomery St		
City, State, Zip:	San Francisco, CA 94111			City, State, Zip:	San Francisco, CA 94111		
Phone:	907-223-1684	Fax:	- -	Phone:	415-425-4518	Fax:	- -
E-Mail:	W.Leighty@shell.com			E-Mail:	Lars.Zimmermann@shell.com		

Selection Process Used	
<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: GFO-15-605
<input type="checkbox"/> First Come First Served Solicitation	

The following items should be attached to this GRF			
1. Exhibit A, Scope of Work		<input checked="" type="checkbox"/>	Attached
2. Exhibit B, Budget Detail		<input checked="" type="checkbox"/>	Attached
3. CEC 105, Questionnaire for Identifying Conflicts		<input checked="" type="checkbox"/>	Attached
4. Recipient Resolution		<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Attached
5. CEQA Documentation		<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Attached

_____ Agreement Manager	_____ Date	_____ Office Manager	_____ Date	_____ Deputy Director	_____ Date
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**Exhibit A
SCOPE OF WORK**

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Completion of Critical Milestones
3	X	Station Engineering, Equipment Procurement and Site Installation
4	X	Station Commissioning and Operations Start-up
5		Safety Planning and Implementation
6		Data Collection and Analysis
7		Semi-Annual Reports of Renewable Hydrogen Dispensed

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Manfred Becker – Shell Hydrogen Operations and HSSE Manager James Martin – Shell Hydrogen Project Manager Lars Zimmermann – Shell Hydrogen Project Manager Omar Shkeir – Shell Hydrogen Operations Wayne Leighty – Shell Hydrogen Business Development Manager Kevin Lanier – Agreements Lead (Task 1.1) Hal Henderson – Shell Lead Procurement Manager (Task 1.8) Oliver Bishop – Shell Hydrogen General Manager		
2	Manfred Becker – Shell Hydrogen Operations and HSSE Manager James Martin – Shell Hydrogen Project Manager		

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
	<p>Lars Zimmermann – Shell Hydrogen Project Manager</p> <p>Omar Shkeir – Shell Hydrogen Operations</p> <p>Oliver Bishop – Shell Hydrogen General Manager</p>		
3	<p>Manfred Becker – Shell Hydrogen Operations and HSSE Manager</p> <p>James Martin– Shell Hydrogen Project Manager</p> <p>Lars Zimmermann – Shell Hydrogen Project Manager</p> <p>Omar Shkeir – Shell Hydrogen Operations</p> <p>Hal Henderson – Shell Lead Procurement Manager</p> <p>Richard Scott – Shell Hydrogen Operations and Safety Coordinator</p>	Nel Hydrogen A/S	
4	<p>Manfred Becker – Shell Hydrogen Operations and HSSE Manager</p> <p>James Martin– Shell Hydrogen Project Manager</p> <p>Lars Zimmermann – Shell Hydrogen Project Manager</p> <p>Omar Shkeir – Shell Hydrogen Operations</p> <p>Richard Scott – Shell Hydrogen Operations and Safety Coordinator</p>	Nel Hydrogen A/S	
5	<p>Manfred Becker – Shell Hydrogen Operations and HSSE Manager</p> <p>Annemarie Purmer – Shell Hydrogen HSSE</p> <p>James Martin– Shell Hydrogen Project Manager</p> <p>Richard Scott – Shell Hydrogen</p>	Nel Hydrogen A/S	

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
	Operations and Safety Coordinator		
6	Manfred Becker – Shell Hydrogen Operations and HSSE Manager James Martin– Shell Hydrogen Project Manager Richard Scott – Shell Hydrogen Operations and Safety Coordinator Omar Shkeir – Shell Hydrogen Operations	Nel Hydrogen A/S	AU Energy
7	Manfred Becker – Shell Hydrogen Operations and HSSE Manager James Martin– Shell Hydrogen Project Manager Richard Scott – Shell Hydrogen Operations and Safety Coordinator Omar Shkeir – Shell Hydrogen Operations		

GLOSSARY

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

Term/Acronym	Definition
AB	Assembly Bill
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CCR	California Code of Regulations
CPR	Critical Project Review
EMV	Europay, Mastercard, and Visa
Energy Commission	California Energy Commission
FCEV	Fuel Cell Electric Vehicle
FTD	Fuels and Transportation Division
GFO	Grant Funding Opportunity
HSSE	Health, Safety, Security and Environment
HyStEP	Hydrogen Station Equipment Performance
NFPA	National Fire Protection Association
NREL	National Renewable Energy Laboratory
OEM	Original Equipment Manufacturer
POS	Point of Sale

Term/Acronym	Definition
Recipient	Equilon Enterprises LLC (d/b/a Shell Oil Products US)

BACKGROUND

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). The statute authorizes the California Energy Commission (Energy Commission) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state’s climate change, clean air, and alternative energy policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the ARFVTP through January 1, 2024. The ARFVTP has an annual budget of approximately \$100 million and provides financial support for projects that:

- Reduce California’s use and dependence on petroleum transportation fuels and increase the use of alternative and renewable fuels and advanced vehicle technologies.
- Produce sustainable alternative and renewable low-carbon fuels in California.
- Expand alternative fueling infrastructure and fueling stations.
- Improve the efficiency, performance and market viability of alternative light-, medium-, and heavy-duty vehicle technologies.
- Retrofit medium-and heavy-duty on-road and non-road vehicle fleets to alternative technologies or fuel use.
- Expand the alternative fueling infrastructure available to existing fleets, public transit, and transportation corridors.
- Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.

The Energy Commission issued solicitation Grant Funding Opportunity (GFO)-15-605, Light Duty Vehicle Hydrogen Refueling Infrastructure, to provide grant funds to expand the network of publicly accessible hydrogen refueling stations that serve California’s light duty fuel cell electric vehicles (FCEVs). To be eligible for funding under GFO-15-605, the projects must also be consistent with the Energy Commission’s ARFVTP Investment Plan updated annually.

In response to GFO-15-605, Equilon Enterprises LLC (d/b/a Shell Oil Products US) (Recipient) submitted application number 3 for a station located at 3510 Fair Oaks Boulevard, Sacramento, CA 95864, which was proposed for funding in the Energy Commission’s Notice of Proposed Awards on February 17, 2017. Recipient’s application, the Notice of Proposed Awards for GFO-15-605, and GFO-15-605 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 the Energy Commission’s Award, the Commission’s Award shall control. Similarly, in the

event of any conflict or inconsistency between the terms of this Agreement and the Recipient's Application, the terms of this Agreement shall control.

Problem Statement:

Additional hydrogen refueling stations are needed in the Northern California hydrogen station network to ensure there are convenient and plentiful opportunities to refuel FCEVs, thus making FCEVs a viable transportation option for the general public in Northern California. As with any new technology, there are barriers that must be overcome and knowledge gaps that must be addressed to ensure widespread adoption and deployment. To date, the chasm between an economic business case and the actual financial losses encountered by companies who have made significant investments in either FCEV manufacturing or in hydrogen refueling infrastructure has led to a common view by many market players that FCEV technology may never overcome these barriers.

This project will help address scientific and technical barriers, including the limited availability of hydrogen refueling infrastructure performance data by delivering station performance data for larger capacity stations (400 kg of hydrogen in 24 hours and 360 kg in 12 hours) which will augment current data collection efforts managed by the National Renewable Energy Laboratory (NREL).

The industry also lacks standardization of station/delivery truck interface as well as standardization on how to safely supply 450 bar ground storage with 500 bar trailers. Thus the delivery method proposed in this project will provide valuable experience that can inform efforts to develop industry-wide standards.

Market barriers that need to be overcome include the ability to predict future behavior related to hydrogen vehicle deployments. The deployment and operation of a network of stations will provide real world data on FCEV drivers, fuel supply logistics, and station demand—all key variables to feed the analysis necessary to understand future market scenarios.

The market also lacks a qualified workforce to maintain and service hydrogen fueling infrastructure and this project will contribute to training part of the first technical experts. Institutional barriers are largely a result of unfamiliarity with the technology. For example, first responders within authorities having jurisdiction need to be educated in regards to National Fire Protection Association (NFPA) 2 and familiarized with the technology through considerable training and drills. Neighboring residents and businesses to refueling stations may identify noise as an environmental barrier. Equipment associated with station deployment, such as compressors and chillers, need to be designed to minimize their impact on adjacent properties.

Finally, cost and financial barriers may be the most significant hurdles to overcome. Early station deployments will be significantly underutilized and a limited number of companies are able to bear this level of financial burden and risk. Another key barrier is

the high cost of station equipment, in particular the costs associated with the pre-cooling systems. The station design for this project will introduce a new concept that removes the need for a large heat exchanger, enabling easy installation of the dispenser under the forecourt canopy.

Goal of the Agreement:

The goal of this agreement is to facilitate the expansion of FCEV deployment in California by deploying a well-managed hydrogen refueling station in Northern California, in partnership with both the public and private sectors on the following terms:

- Integration with the existing network of 48 ARFVTP funded hydrogen refueling stations that are expected to be fully operational in 2018.

Objectives of the Agreement:

The objectives of this agreement are to provide a hydrogen refueling station at 3510 Fair Oaks Boulevard, Sacramento, CA 95864 and achieve the following:

- Demonstrate that a sustainable economic business model is nearing for hydrogen refueling station sites, featuring the Recipient's considerable experience in retail station design, operations, and maintenance.
- Provide evidence that a hydrogen refueling station technology can fuel a similar number of cars as a small gasoline refueling station and meet the peak fueling demands identified in GFO-15-605 Section VI E.
- Prove the engineering and economic viability of the Recipient's hydrogen refueling station design to dispense four-kilogram hydrogen fills for up to 100 FCEVs per day.
- Demonstrate that Recipient's hydrogen refueling station can meet FCEV consumer convenience needs safely and reliably such that the FCEV customer experience will be equivalent in ease and speed to refueling conventional vehicles.

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 Recipient shall:

- Attend a "Kick-Off" meeting with the CAM, the Commission Agreement Officer (CAO), and a representative of the Energy Commission 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.

- 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)
 - Subcontracts 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 Progress Reports (Task 1.4)
 - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
 - Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products
- Updated list of match funds
- Updated list of permits and copies of any permits received thus far.

CAM Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

CPRs provide the opportunity for frank discussions between the Energy Commission and the Recipient. The goal of this task is to determine if the project should continue to receive Energy Commission 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, the Recipient, and may include the CAO, the Fuels and Transportation Division (FTD) program lead, other Energy Commission staff and Management as well as other individuals selected by the CAM to provide support to the Energy Commission. CPRs will generally be conducted via WebEx.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.

- Send the Recipient the 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:

- 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 Energy Commission 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, the CAO, 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 and the CAO about the following Agreement closeout items:

- What to do with any equipment purchased with Energy Commission funds (Options)
 - Energy Commission's request for specific "generated" data (not already provided in Agreement products)
 - Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
 - "Surviving" Agreement provisions
 - Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement.

Recipient Products:

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

Task 1.4 Monthly 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 Monthly Progress Reports will summarize activities performed during the reporting period, identify activities planned for the next reporting period, identify issues that may affect performance and expenditures, and form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a Monthly 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. Each progress report is due to the CAM within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.
- A Monthly Progress Report shall contain updates on Critical Milestones described in Task 2.
- In the first Monthly Progress Report and first invoice, document and verify match expenditures and provide a synopsis of project progress, if match funds have been expended or if work funded with match share has occurred after the notice of proposed award but before execution of the grant agreement. If no match funds have been expended or if no work funded with match share has occurred before execution, then state this in the report. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.

Recipient Product:

- Monthly Progress Reports

Task 1.5 Final Report

The goal of this task is to produce a Final Report to assess the project's success in achieving the Agreement's goals and objectives and providing energy-related and other benefits to California and to provide a Final Report.

The objectives of the Final Report are to clearly and completely describe the project's purpose, approach, activities performed, and results; to present a public assessment of the success of the project as measured by the degree to which goals and objectives were achieved; to make insightful observations based on results obtained; to draw conclusions; and to make recommendations for further projects and improvements to the FTD project management processes.

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

The Recipient shall:

- Prepare an Outline of the Final Report, if requested by the CAM.

- Prepare a Final Report following the latest version of the Final Report guidelines which will be provided by the CAM. The CAM shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
- Submit one bound copy of the Final Report following the ARFVTP Final Report Template (http://www.energy.ca.gov/contracts/consultant_reports/) with the final invoice.

Recipient Products:

- Outline of the Final Report, if requested
- Draft Final Report
- Final Report

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 Energy Commission budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of Energy Commission funds for each task during the term of this Agreement. 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 Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission 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 Energy Commission 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 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 to the Commission Agreement Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Agreement Manager 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.

Recipient 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)
- Letter 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 Energy Commission budget for this task will be zero dollars, the Recipient shall 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 Commission Agreement Manager 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 Commission Agreement Manager.
 - As permits are obtained, send a copy of each approved permit to the Commission Agreement Manager.
 - If during the course of the Agreement permits are denied, notify the CAM within 5 working days. Either of these events may trigger an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required
- A copy of each 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)
- A copy of each final approved permit (if applicable)

Task 1.8 Obtain and Execute Subcontracts

The goal of this task is to ensure quality products and to procure subcontractors required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement policies and procedures. It will also provide the Energy Commission an opportunity to review the subcontracts to ensure that the tasks are consistent with this Agreement, and that the budgeted expenditures are reasonable and consistent with applicable cost principles.

The Recipient shall:

- Manage and coordinate subcontractor activities.
- Submit a draft of each subcontract required to conduct the work under this Agreement to the CAM for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

Subcontracts may be redacted, as necessary and reasonable, but must include, at a minimum, all of the parties involved, the subcontract duration/term, the budget, the scope of work, the signatures of the parties involved, and the dates of signatures

Products:

- Letter describing the subcontracts needed, or stating that no subcontracts are required.
- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 COMPLETION OF CRITICAL MILESTONES

The goal of this task is to secure, control, and otherwise prepare the selected site for station installation. Recipient must complete the Critical Milestones identified below by the dates specified in the Schedule of Products and Due Dates, Exhibit A-1, in order to receive payment from the Energy Commission under this Agreement. Failure to complete the Critical Milestones by the dates specified in the Schedule of Products and Due Dates may also be cause for termination of this agreement. See also Exhibit C-1 of this Agreement, Special Terms and Conditions.

- ***Critical Milestone 1:*** The Recipient must have held an in-person pre-application meeting, for permits to build and operate each proposed hydrogen refueling station, with the authority that has jurisdiction over the project and entitlement process. The meeting should include but not be limited to discussion of zoning requirements and aesthetics of the proposed refueling station.

The Recipient must provide to the Energy Commission proof of having met this Critical Milestone in order to receive reimbursement for work performed under this Agreement, by submitting notes from a pre-application meeting with a date, time, location, and list of meeting participants to the CAM on or before the date specified in Exhibit A-1 to this Agreement.

Note: Energy Commission staff will determine whether the documentation submitted by the Recipient is sufficient to show that this Critical Milestone has been met.

- **Critical Milestone 2:** The Recipient must have control and possession of the site at which the hydrogen refueling station is to be constructed. The control and possession must be for the purpose of installing and operating a hydrogen refueling station. The Recipient must provide to the Energy Commission proof of future control and possession for a minimum of 5 years after becoming open retail.

The Recipient must provide to the Energy Commission proof of having met this Critical Milestone in order to receive reimbursement for work performed under this Agreement, by submitting adequate documentation of site control to the CAM on or before the date specified in Exhibit A-1 to this Agreement.

Note: Documentation of site control may include, but is not limited to, an executed lease for the land on which the station will be constructed. Energy Commission staff will determine whether the documentation submitted by the Recipient is sufficient to show that this Critical Milestone has been met.

The Recipient shall:

- Hold an in-person pre-application meeting, for permits to build and operate the hydrogen refueling station, with the authority that has jurisdiction over the project and entitlement process by the date specified in the Schedule of Products and Due Dates, Exhibit A-1.
- Obtain control and possession of the site at which the hydrogen refueling station is to be constructed by the date specified in the Schedule of Products and Due Dates, Exhibit A-1.

Products:

- Documentation of an in-person pre-application meeting with the authority that has jurisdiction over the project for permits to build and operate the hydrogen refueling station.
- Documentation of obtained site control.

TASK 3 STATION ENGINEERING, EQUIPMENT PROCUREMENT AND SITE INSTALLATION

The goal of this task is to finalize the engineering design, procure equipment, submit permits, and complete installation for the development of a hydrogen refueling station located at:

3550 Mission Street, San Francisco, CA 94110

The designed system shall adhere to the technical specifications in the Recipient's funding application and the Minimum Technical Requirements contained in GFO-15-605.

The Recipient shall:

- Finalize detailed engineering design and equipment layouts for the proposed fueling station installation. Develop and assemble all necessary engineering drawings and documentation.
- Finalize major equipment list needed for all aspects of the hydrogen refueling station.
- Prepare an equipment list for the station which will include but is not limited to:
 - Description of each item.
 - Test protocols and codes applicable to each item.
- Complete purchase orders and submit for procurement the equipment required for the hydrogen station installation.
- Complete engineering activities necessary for the needed permits.
- Prepare and submit construction and installation permits.
- Ensure all major equipment is appropriately conditioned and tested prior to shipment.
- Complete all construction and installation including civil, structural, electrical, and mechanical installation per the engineering design and in compliance with local permitting requirements and local and national codes.
- Prepare Safety Training Plan.
- Conduct safety training with engineering personnel and contractors.
- Prepare Preventative Maintenance Plan.
- Provide written documentation to the CAM that station installation is complete. Include a proposed date when operation will begin, and photographs of the station.
- Ensure that the station and each hydrogen refueling dispenser meets or exceeds the Minimum Technical Requirements as specified in GFO-15-605, Section VI.

Products:

- Equipment list for the station
- Safety Training Plan
- Preventative Maintenance Plan

- Written Notification regarding station installation
- Photographs of installed equipment
- Written and signed self-declaration of compliance (on company letterhead) with the Minimum Technical Requirements specified in GFO-15-605, Section VI.

[A CPR will be held during this task]

TASK 4 STATION COMMISSIONING AND OPERATIONS START-UP

The goals of this task are to test and commission the hydrogen refueling station to become operational (as defined in GFO-15-605, Section II. F.) and become open retail (as defined in GFO-15-605, Section II. H.).

The Recipient shall:

- Complete engineering readiness review of station equipment and safety systems.
- Complete commissioning and start-up of the hydrogen refueling station using the Hydrogen Station Equipment Performance (HyStEP) device or Original Equipment Manufacturer (OEM) best practices as described in the Minimum Technical Requirements.
- Prepare Station Acceptance Testing Report which will include:
 - Documentation of the station readiness review.
 - Station commissioning test results.
 - Recommended additions to the safety and maintenance plans.
 - Station photographs showing evidence of filling one FCEV with hydrogen, the vehicle identification number (VIN) of the vehicle, and the system components installed at the station.
- Notify the CAM in writing when the station becomes operational (as defined in GFO-15-605, Section II. F.).
- Notify the CAM in writing that the station has become open retail (as defined in GFO-15-605, Section II. H.) no more than 180 days after becoming operational.

Products:

- Station Acceptance Testing Report for the station
- Written notification of when the station becomes operational (as defined in GFO-15-605, Section II. F.), either by corporate email or on company letterhead.

- Written notification that the station has become open retail (as defined in GFO-15-605, Section II. H.), no more than 180 days after becoming operational, either by corporate email or on company letterhead.

[A CPR will be held during this task.]

TASK 5 SAFETY PLANNING AND IMPLEMENTATION

The goal of this task is to address the Hydrogen Safety Panel comments on the Hydrogen Safety Plan and to implement these plans as practicable with the station operators, maintenance contractors, and first responders.

The Recipient shall:

- Review, consider, and address the comments from the Hydrogen Safety Panel.
- Update Safety Training Plan to include training for station operators, maintenance personnel, and first responders.
- Update Hydrogen Safety Plan based on the comments from the Hydrogen Safety Panel.

Products:

- Written report provided to the CAM that reviews and addresses the Hydrogen Safety Panel comments on company letterhead
- Updated Safety Training Plan
- Updated Hydrogen Safety Plan

TASK 6 DATA COLLECTION AND ANALYSIS

The goal of this task is to collect operational data from the project and the hydrogen refueling station, to analyze that data for economic and environmental impacts, and to include the data and analysis in the Final Report.

The Recipient shall:

- Develop a plan for data collection according to the NREL Data Collection Tool.
- Collect 12 months of station throughput, usage, and operations data from the project including, but not limited to:
 - Maximum capacity of the new refueling system
 - Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)

- Expected air emissions reduction, for example:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Non-methane hydrocarbons plus oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
- Specific jobs and economic development resulting from this project.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code Regulations (CCR) and their impact on energy savings and cost to operate the station.
- Provide a quantified estimate (actual and estimated) of the project's carbon intensity values for life-cycle greenhouse gas emissions.
- Collect data, information, and analysis described above and include in the Final Report.
- Complete the NREL Data Collection Tool for each quarter and submit to the CAM.

Products:

- Completed quarterly NREL Data Collection Tool.
- Data collection information and analysis to be included in the Final Report.

TASK 7 SEMI-ANNUAL REPORTS OF RENEWABLE HYDROGEN DISPENSED

The goal of this task is to report the renewable hydrogen dispensed at the hydrogen refueling station every six months from the operational date of the hydrogen refueling station until the Final Report has been accepted by the CAM.

The Recipient shall:

- Ensure that the hydrogen refueling station dispenses a minimum renewable hydrogen content of at least 33% renewable hydrogen (on a per kilogram basis).

- Complete and submit semi-annual reports of Renewable Hydrogen Dispensed (Exhibit C) once the hydrogen refueling station becomes operational.
- Identify the current and planned use and source of renewable energy at the facility and the source of the alternative fuel.

Product:

- Semi-annual reports of Renewable Hydrogen Dispensed.

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: EQUILON ENTERPRISES LLC (DBA SHELL OIL PRODUCTS US)

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

RESOLVED, that the Energy Commission approves Agreement ARV-17-007 with Equilon Enterprises LLC (dba Shell Oil Products US) for a \$2,337,500 grant to develop a hydrogen refueling station at 3550 Mission Street, San Francisco, CA 94110; and

FURTHER BE IT RESOLVED, that the Executive Director or his/her designee shall execute the same on behalf of the Energy Commission.

CERTIFICATION

The undersigned Secretariat to the Commission 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 California Energy Commission held on August 9, 2017.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite,
Secretariat