STATE OF CALIFORNIA
GRANT AMENDMENT REQUEST FORM (GARF)
CEC-277 (Revised 10/2015) CALIFORNIA ENERGY COMMISSION

Original Agreement #	ARV-14-018		5

600 Fuels and Transportation Division	Andrew Hom	27	916-651-3000

Linde LLC	20-1043281

☐ Term Extension	New End Date: / /	Include revised schedule and complete items A, B, C, & F below.
☐ Budget Augmentation	Amendment Amount: $ 0	Include revised budget and complete items A, B, C, D, & F below.
☐ Budget Reallocation		Include revised budget and complete items A, B, C, & F below.
☒ Scope of Work Revision		Include revised scope of work and complete items A, B, C, E, & F below.
☐ Change in Project Location or Demonstration Site		Include revised scope of work and complete items A, B, C, E, & F below.
☒ Novation/Name Change of Prime Contractor/Recipient		Include novation documentation and complete items A, B, C, & F below.
☐ Terms and Conditions Modification		Include applicable exhibits with bold/underline/ strikeout and complete items A, B, C, &F below.

Business Meeting approval is not required for the following types of Agreements:

☐ Minor amendments delegated to Executive Director per December 2013 Resolution

Proposed Business Meeting Date	10 / 03 / 2018	☒ Consent	☐ Discussion
Business Meeting Presenter		Time Needed:	minutes

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

Agenda Item Subject and Description

Proposed resolution approving Amendment 5 to Agreement ARV-14-018 with Lindee, LLC for a Novation to add Iwatani Corporation of America (Iwatani) as a third-party Recipient, and to revise the Scope of Work to allow Iwatani to accept Linde's data collection and final report requirements for the hydrogen refueling station located in San Ramon.

Legal Company Name:	Budget
Engineering, Procurement, and Construction, LLC	$ 754,953.00
John Boyle Consulting LLC	$ 11,000.00
Becht Engineering Co	$ 3,190.00

Legal Company Name:

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
Funding Source			$
Funding Source			$
Funding Source			$
Funding Source			$
Funding Source			$
R&D Program Area: Select Program Area			$ 0
Explanation for “Other” selection			
Reimbursement Contract #:		Federal Agreement #:	

E) 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, sections 15303 ("New Construction or Conversion of Small Structures"); 15304 ("Minor Alterations to Land")
   ☐ Common Sense Exemption. 14 CCR 15061 (b) (3)

Explain reason why Agreement is exempt under the above section:
The Energy Commission previously found this project categorically exempt for two locations (Oakland Airport and San Ramon). One of the locations is changing from a new station at Oakland Airport to an upgrade of the existing hydrogen refueling station at AC Transit's Emeryville facility, which will be similarly exempt as described below, with no significant effect on the environment.

This project will involve the installation of 1 hydrogen storage tank, a compression system, and a dispenser for each of the 2 locations. The locations for both stations are industrial. 1172 45th Street, Emeryville, CA 94608 is located on AC Transit property at an existing light-duty hydrogen refueling station. 2451 Bishop Drive, San Ramon, CA 94583 is located on property that is currently a landscaped berm owned by Toyota, close to a large Toyota parts distribution center. For each station, the equipment to be installed as part of the project will cover an area of less than 1575 square feet, with an additional 725 square feet for paving and landscaping, and another 200 square feet for siting a remote dispenser.

Additional information regarding the applicable zoning and trenching at each of the locations is as follows.
1172 45th Street: Located on AC Transit property, this project will upgrade the light-duty hydrogen refueling station that is already zoned and operational.

2451 Bishop Drive: Located in a modern, mixed used development of industrial, office, commercial, and residential properties. The station will be built on property that is currently a landscaped berm owned by Toyota Motor Company, where they have a large parts distribution center. UPS has a distribution center directly across the street. Interstate 680 is adjacent to the site and the nearest interchange is three minutes away at Crow Canyon Road. Caltrans is proposing to build an HOV access ramp to Bishop Ranch at Norris Canyon Road or one of the parallel streets to the south. 8 feet of trenching.
For both stations the storage tank will hold up to 3,000 gallon of hydrogen (660 kg). The hydrogen dispenser will dispense at 350 bar and 700 bar. Delivery of hydrogen to the site is in liquid form and stored in a vacuum jacketed vessel. Gaseous storage will be in high pressure composite pressure vessels. Control valves will be pneumatically operated. All control valves fail in the safe direction (open or closed depending on the service) 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. 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 one hydrogen storage tank of up to 660 kg capacity, and 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 these projects there will be about 8 feet of trenching per location to connect storage and compression equipment to dispensers. No trees will be removed and the surface will be restored. This reflects exactly 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.

☐ b) 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

1. Exhibit A, Scope of Work	☐ N/A	☒ Attached
2. Exhibit B, Budget Detail	☒ N/A	☐ Attached
3. CEQA Documentation	☐ N/A	☐ Attached
4. Novation Documentation	☐ N/A	☐ Attached
5. CEC 105, Questionnaire for Identifying Conflicts		☒ Attached

Agreement Manager	Date	Office Manager	Date	Deputy Director	Date

Exhibit A
SCOPE OF WORK

RECITALS

1. **This Agreement started as a two-party agreement between the California Energy Commission (Energy Commission or just the Commission) and Linde, LLC (Linde).**

2. **Amendment 5 to this Agreement changes it from a two-party Agreement to a three-party Agreement.**

3. **Iwatani Corporation of America (Iwatani) is the new party to this Agreement.**

4. **This Agreement involves two hydrogen refueling stations:**

    a) **One hydrogen refueling station is located at 2451 Bishop Drive, San Ramon, CA 94583 (the San Ramon station); and**

    b) **The other hydrogen refueling station is located at 1172 45th Street, Emeryville, CA 94608 (the Emeryville station).**

5. **The change from a two-party to a three-party Agreement is brought about by negotiations between Linde and Iwatani to execute a contract for Linde to sell the San Ramon station to Iwatani (Station Sale Contract).**

6. **The three Parties intend that if Linde and Iwatani execute the Station Sale Contract, Iwatani will replace Linde in this Agreement relative to the San Ramon station.**

THREE-PARTY AGREEMENT

In consideration for the mutual promises contained in this Agreement, the three Parties agree as follows:

1. **The foregoing Recitals are true and correct and included as part of this Agreement.**

2. **If Linde and Iwatani execute the Station Sale Contract, as of the effective date of it, under this Agreement Iwatani assumes and agrees to perform and fulfill relative to the San Ramon station all the terms, covenants, conditions, and obligations previously required to be performed and fulfilled by Linde under the Agreement and any reference to Linde in the Agreement relative to the San Ramon station will be deemed a reference to Iwatani. Iwatani also as of the date of the Station Sale Contract assumes, relative to the San Ramon station, all obligations and liabilities of, and all claims against, Linde under the Agreement as if it was the original party to the Agreement.**

3. **Linde will continue to perform as required under this Agreement except as related to the San Ramon station after the Station Sale Contract is executed.**

4. **Per Exhibit C, Section 12 "Equipment," the Energy Commission approves of Linde's sale of the San Ramon station to Iwatani.**

5. **Per this Exhibit A, Section 1.4 "Monthly Progress Reports," after the Station Sale Contract is executed, both Linde and Iwatani will provide separate monthly progress reports for their respective stations.**

6. **Per this Exhibit A, Section 1.5 "Final Report," Linde will perform this task and provide the required products to the Energy Commission, and if the Station Sale Contact is executed, Iwatani will provide information about the San Ramon station to Linde to include in the products.**

7. **The Energy Commission has already paid Linde $1,197,205.45 under this Agreement. The Energy Commission anticipates paying out the rest of the funds (including retention) under this Agreement to Linde via future invoices and shall not pay any funds to Iwatani.**

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Engineering, Procurement, and Site Installation
3		Testing, Commissioning, and Making Stations Operational
4		Data Collection and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Michael Beckman – Linde Nitin Natesan – Linde	Center for Transportation and the Environment	
2	Robert Schluter – Linde Nitin Natesan – Linde Robert Adler – Linde ATZ	Quantum Technologies	
3	Nitin Natesan – Linde Robert Adler – Linde ATZ Erik Tudbury – Linde Tom Dziak – Linde		
4	Tom Dziak – Linde		

GLOSSARY

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

Term/ Acronym	Definition
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
CAM	Commission Agreement Manager
CPR	Critical Project Review
FCV	Fuel Cell Vehicles
FTD	Fuels and Transportation Division
Recipient	Linde, and if the Station Sale Contract is executed then also Iwatani relative to the San Ramon station

BACKGROUND

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

- 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;
- Expand fuel infrastructure, refueling 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.

The Energy Commission issued solicitation PON-13-607 to develop infrastructure necessary to dispense hydrogen transportation fuel and to support hydrogen refueling operations prior to large-scale roll-out of Fuel Cell Vehicles (FCVs). To be eligible for

funding under PON-13-607, projects must also be consistent with the Energy Commission's ARFVT Investment Plan, updated annually. In response to PON-13-607, Linde (Recipient) submitted application numbers 118 and 120, which were proposed for funding in the Energy Commission's Notice of Proposed Awards on May 1, 2014. PON-13-607 and Recipient's aforementioned applications 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 Energy 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:

Hydrogen distribution and dispensing infrastructure is not readily available to meet projected commercial targets for the deployment of FCVs. As FCVs are deployed in greater quantities, a program is needed to ensure ample fuel supply via a network of refueling stations that provides coverage which takes advantage of the range of the vehicle, and provides a means to transport, store, and dispense hydrogen. This project includes two stations.

Goals of the Agreement:

The goal of this Agreement is to build out the hydrogen refueling infrastructure to support the roll out of FCVs.

Objective of the Agreement:

The objective of this Agreement is to install and operate two hydrogen refueling stations**.**

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 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 Commission Agreement Manager, the Grants Officer, and a representative of the Accounting Office. The Recipient shall bring its Project Manager, Agreement Administrator, Accounting Officer, and others designated by the Commission Agreement Manager 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

Commission Agreement Manager 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 Commission Agreement Manager may schedule CPR meetings as necessary, and meeting costs of the Recipient will be borne by the Recipient.

Meeting participants include the CAM and the Recipient and may include the Commission Grants Officer, the Fuels and Transportation Division (FTD) biofuel lead, other Energy Commission staff and Management as well as other individuals selected by the CAM to provide support to the Energy Commission.

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 Commission Grants Office Officer, and the Commission Agreement Manager. 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 Commission Agreement Manager.

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 Commission Agreement Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Commission Agreement Manager and the Grants Officer 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.

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 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 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 Commission Agreement Manager 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.

- Monthly Progress Reports shall include hydrogen quality test results at least once every 6 months, and more frequently if the hydrogen lines are exposed to contamination due to maintenance or other activity. (See requirements in PON-13-607 Section IV. Subsection A.)
- Monthly Progress Reports shall also include the station and dispenser compliance with SAE International Technical Information Report (TIR) J2601: 2010, “Fueling Protocols for Light Duty Gaseous Hydrogen Surface Vehicles” (general requirements and operating conditions for fuel cell vehicles) until which time the SAE International SAE J2601 Standard is published. Thereafter, the station(s)/dispenser(s) shall meet the requirements of the standard (www.sae.org). Stations shall have communications available for H70 fueling according to the SAE J2799 Standard. Should the SAE International J2601 Standard not be available, the station(s)/dispensers(s) shall be capable of providing SAE TIR J2799: 2007, “70 MPa Compressed Hydrogen Surface Vehicle Fueling Connection Device and Optional Vehicle to Station Communications”.
- Monthly Progress Reports shall also include the amount of hydrogen dispensed per month in kilograms.
- 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.

Product:

- Monthly Progress Reports

Task 1.5 Final Report

The goal of the Final Report is to assess the project’s success in achieving the Agreement’s goals and objectives, advancing science and technology, and providing energy-related and other benefits to California.

The objectives of the Final Report are to clearly and completely describe the project’s purpose, approach, activities performed, results, and advancements in science and technology; 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 with the final invoice.

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.

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 not obtained on time or are denied, notify the Commission Agreement Manager 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 Commission Agreement Manager for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

Products:

- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 ENGINEERING, PROCUREMENT, AND SITE INSTALLATION

The goal of this task is to design, procure, and construct two hydrogen refueling stations at ~~1019 Langley Street, Oakland, CA 94621~~ **1172 45th Street, Emeryville, CA 94608 (upgrade of AC Transit's light-duty station)** and 2451 Bishop Drive, San Ramon, CA 94583.

[A CPR will be held at the conclusion of this task]

The Recipient shall:

- Design the hydrogen refueling equipment with consideration of site-specific, equipment-specific and operational conditions
- Prepare and submit an equipment list for each hydrogen refueling station, including cost estimates for all components
- Complete all construction and installation
- Prepare and submit written notification that construction and installation is complete, which includes photographs of the equipment

Products:

- Equipment List

- Written Notification that construction and installation is complete
- Photographs of installed equipment

TASK 3 TESTING, COMMISSIONING, AND MAKING STATIONS OPERATIONAL

The goals of this task are to test, commission and make operational the hydrogen refueling stations. For each station, the operational date is defined as the date by which all of the following are completed: 1) the hydrogen fuel supply and all station/dispenser components are installed; 2) all required permits from local agencies are received; 3) the station has successfully completed a hydrogen quality test as specified in PON-13-607 Section IV.A; 4) the station has successfully fueled one fuel cell vehicle with hydrogen; and 5) the station is open to the public.

The Recipient shall:

- Provide training to the station operators.
- Commission, test and verify performance of the hydrogen refueling stations and complete all qualification testing required by PON-13-607 (Section IV. Minimum Technical Requirements).
- Ensure that each station shall have a minimum daily fueling capacity of 350 kilograms. The station must be able to deliver the rated daily capacity over a 12 hour period. The average daily station capacity (kg/day) shall be the total kg of hydrogen that can be delivered to a 7 kg-capacity fuel cell vehicle according to the SAE J2601, over a 12 hour period.
- Make all stations operational by October 31, 2015.
- For each station, provide written notification to the CAM that the station has become operational in accordance with the operational date definition. Written notification shall include: 1) the date and time each station has fully met the operational date definition; 2) a listing of the qualification testing performed; and 3) the results of those tests.

Products:

- Written Notification as each hydrogen refueling station becomes operational.

Task 4 DATA COLLECTION AND ANALYSIS

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

If the Station Sale Contract is executed, Iwatani accepts the Recipient's data collection and final report requirements listed below for the San Ramon station, and Linde LLC will continue its responsibilities contained within this Agreement for the Emeryville station.

The Recipient shall:

- Develop a plan for data collection according to the National Renewable Energy Laboratory (NREL) Data Collection Tool.
- Troubleshoot any issues identified.
- Collect 12 months of 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
- Identify any current and planned use of renewable energy at the facility.
- Identify the source of the alternative fuel.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code Regulations.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- 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 Energy Commission with actual project performance and accomplishments.
- Complete the Data Collection Tool for each quarter and submit to the CAM
- Collect data, information, and analysis described above and include in the Final Report.

Products:

- Quarterly Data Collection Tool
- Data collection information and analysis will be included in the Final Report

RESOLUTION NO: 18-1003-1e

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: LINDE,LLC.

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 Amendment 5 to Agreement ARV-14-018 with Linde, LLC for a Novation to add Iwatani Corporation of America (Iwatani) as a third-party Recipient, and to revise the Scope of Work to allow Iwatani to accept Linde's data collection and final report requirements for the hydrogen refueling station located in San Ramon; 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 October 3, 2018.

AYE: [List of Commissioners]
NAY: [List of Commissioners]
ABSENT: [List of Commissioners]
ABSTAIN: [List of Commissioners]

Cody Goldthrite,
Secretariat