STATE OF CALIFORNIA

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 12/2019) CALIFORNIA ENERGY COMMISSION

A) New Agreement # ARV-21-037 (to be completed by CGL office)

B) Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Alexander Wan	27	916-805-7477

C) Recipient's Legal Name	Federal ID #
Pilot Travel Centers LLC (dba Pilot Flying J)	34-1953155

D) Title of Project
California ZEV Highway Blueprint

E) Term and Amount

Start Date	End Date	Amount
2/16/2022	04/30/2023	$200,000

F) Business Meeting Information

☐ ARFVTP agreements $75K and under delegated to Executive Director

Proposed Business Meeting Date 2/16/2022 ☒ Consent ☐ Discussion

Business Meeting Presenter Kate Reid Time Needed: 0 minutes

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

Agenda Item Subject and Description:
PILOT TRAVEL CENTERS LLC (dba Pilot Flying J). Proposed resolution approving Agreement ARV-21-037 with Pilot Travel Centers LLC for a $200,000 grant to develop a plan of action and milestones for deployment of medium- and heavy-duty (MD/HD) ZEV infrastructure; advance the understanding about how travel centers can be a reliable, resilient resource for MD/HD ZEV charging and refueling; and adopting staff's determination that this action is exempt from CEQA. (Clean Transportation Program funding) Contact: Kate Reid.

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:

   a) ☒ Agreement **IS** exempt.

   ☐ Statutory Exemption. List PRC and/or CCR section number:

   ☒ Categorical Exemption. List CCR section number: 14 CCR section 15306 – Information Collection

   ☐ Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why Agreement is exempt under the above section: Cal. Code Regs, tit. 14, §15306, Information Collection, provides that projects which consist of basic data collection, research and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically

exempt from the provisions of CEQA. This project consists of developing a planning document for possible, future deployment of zero emission vehicle infrastructure equipment. The project will not cause direct physical changes to the environment, and there will be no physical construction. This project involves data collection, technology assessment, public outreach, administrative coordination efforts, planning, and similar activities. Therefore,
the proposed project will have no significant effect on the environment and is categorically exempt under section 15306.

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

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

Legal Company Name:	**Budget**
Arup North America Limited	$179,996
Build Momentum (d.b.a. Momentum)	$20,004

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

Legal Company Name:

J) Budget Information

Funding Source	**Funding Year of Appropriation**	**Budget List Number**	**Amount**
ARFVTP	FY 19/20	601.118L	$200,000
Funding Source			$
Funding Source			$
Funding Source			$
Funding Source			$

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

Explanation for “Other” selection

Reimbursement Contract #: Federal Agreement #:

K) Recipient’s Contact Information

1. **Recipient’s Administrator/Officer**

STATE OF CALIFORNIA

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CEC-270 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

Name: Karen Fitzpatrick

Address: 5508 Lonas Road

City, State, Zip: Knoxville, TN 37909

Phone: 865-801-5013

E-Mail: karen.fitchpatrick@pilottravelcenters.com

2. Recipient's Project Manager

Name: Bryan Martin

Address: 5508 Lonas Road

City, State, Zip: Knoxville, TN 37909

Phone: 865-209-6801

E-Mail: Bryan.Martin@pilottravelcenters.com

L) Selection Process Used

☒ Competitive Solicitation Solicitation #: GFO-20-601

☐ First Come First Served Solicitation Solicitation #: - -

M) The following items should be attached to this GRF

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

Alexander Wan
Agreement Manager

2/4/2022
Date

Office Manager

Date

Deputy Director

Date

Exhibit A
SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Community Outreach and Key Stakeholder Engagement
3		Operator Needs and Infrastructure Performance Specifications
4	X	Conceptual Travel Center Design
5		Resiliency Planning
6		Maintaining Flexibility for Future Technological Improvements
7		Evaluating Community Impacts
8		Project Fact Sheet
9		Blueprint

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Bryan Martin, Pilot Travel Centers LLC (Pilot)	Arup North America Limited (Arup)	Build Momentum d.b.a. Momentum
2	Bryan Martin	Arup	Build Momentum
3	Bryan Martin	Arup	Build Momentum
4	Bryan Martin	Arup	Build Momentum
5	Bryan Martin	Arup	Build Momentum
6	Bryan Martin	Arup	Build Momentum
7	Bryan Martin	Arup	Build Momentum
8	Bryan Martin	Arup	Build Momentum
9	Bryan Martin	Arup	Build Momentum

GLOSSARY

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

Term/ Acronym	Definition
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CBO	Community-Based Organization
CEC	California Energy Commission

CPR	Critical Project Review
DAC	Disadvantaged Community
DCFC	Direct-Current Fast Charger
DER	Distributed Energy Resource
FTD	Fuels and Transportation Division
GHG	Greenhouse Gas
MD/HD	Medium- and Heavy-Duty
Recipient	Pilot Travel Centers LLC
VGI	Vehicle-Grid Integration
ZEV	Zero-Emission Vehicle

Background

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Clean Transportation Program. The statute authorizes the California Energy Commission (CEC) 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 Clean Transportation Program through January 1, 2024. The Clean Transportation Program 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.

On July 14, 2020, the CEC released Grant Funding Opportunity, entitled "Blueprints for Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure." This competitive grant solicitation was to accelerate the deployment of MD/HD ZEVs and ZEV infrastructure with a holistic and futuristic view of transportation planning. In response to GFO-20-601, the Recipient submitted application #25 which was proposed for funding in the CEC's Notice of Proposed Awards on April 8, 2021. GFO-20-601 and the Recipient's application are hereby incorporated by reference into this Agreement in their entirety.

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

inconsistency between the Recipient's Application and the terms of CEC's Award, CEC'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:

Range anxiety is a critical barrier to the adoption of zero-emission vehicles (ZEV), and especially for medium- and heavy-duty (MD/HD) vehicles where existing charging infrastructure is severely limited. The CEC and private-sector charging station manufacturers (e.g. Tesla, EVgo, Chargepoint) invested heavily in infrastructure deployments to promote the adoption of light-duty ZEVs. With the procession of ZEV technologies, the MD/HD sector is ready to move beyond one-off demonstrations into commercial deployments. A major impediment to MD/HD ZEV commercial deployments is range anxiety along California's major throughway. Unlike the light-duty automobile sector, the MD/HD automobile sector is dominated by commercial enterprises that pride themselves on timely and efficient service. There is significant cost to a stranded vehicle without fuel and meaningful cost implications around long refueling times. Today, California does not have the infrastructure backbone to reduce range anxiety of MD/HD ZEV fleet operators, which stifles the commercial deployment of the technology.

Goals of the Agreement:

The goal of this Agreement is to advance the understanding about how travel centers can be a reliable and resilient resource to the MD/HD industry for MD/HD ZEV charging and refueling.

Objectives of the Agreement:

The objectives of this Agreement are to:

- Advance facility site design to vet the design process and identify real-world operability considerations given existing and future anticipated utilization. This includes commercial evaluation of differing technology and deployment approaches.
- Engage a broad stakeholder network to develop a comprehensive, economic, and equitable approach to rapidly deploying MD/HD ZEV infrastructure.
- Define fleet operator and driver needs to identify critical performance specifications that are important to the ultimate customer and MD/HD ZEV user.
- Advance the understanding about how travel centers can be a reliable, resilient resource to the MD/HD industry for MD/HD ZEV charging and refueling even during grid-down events, other potential service disruptions, and emergency scenarios.
- Develop a phased approach to infrastructure deployment that maintains flexibility to react to a nascent market with rapidly evolving technology.
- Identify workforce education and training resources to prepare maintenance technicians for MD/HD ZEVs on the road.

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 California Energy Commission (CEC) Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM to this meeting.
- Provide a written statement of project activities that have occurred after the notice of proposed awards but prior to the execution of the agreement using match funds. If none, provide a statement that no work has been completed using match funds prior to the execution of the agreement. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.
- Discuss the following administrative and technical aspects of this Agreement:
    - Agreement Terms and Conditions
    - Critical Project Review (Task 1.2)
    - Match fund documentation (Task 1.7) No reimbursable work may be done until this documentation is in place.
    - Permit documentation (Task 1.8)
    - Subcontracts needed to carry out project (Task 1.9)
    - The CAM's expectations for accomplishing tasks described in the Scope of Work
    - An updated Schedule of Products and Due Dates
    - Monthly Calls (Task 1.4)
    - Quarterly Progress Reports (Task 1.5)
    - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
    - Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits
- Written Statement of Match Share Activities

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

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the CEC, but they may take place at another location or remotely.
- Send the Recipient the 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 CEC staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

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

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

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

  - What to do with any equipment purchased with CEC funds (Options)
  - CEC request for specific "generated" data (not already provided in Agreement products)
  - Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
  - "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 Calls

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

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

The CAM shall:

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

The Recipient shall:

- Review the questions provided by CAM prior to the monthly call
- Provide verbal answers to the CAM during the call.

Product:

- Email to CAM concurring with call summary notes.

Task 1.5 Quarterly Progress Reports

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

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

The Recipient shall:

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

Product:

- Quarterly Progress Reports

Task 1.6 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 CEC 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.
- 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
- Draft Final Report
- Final Report

Task 1.7 Identify and Obtain Matching Funds

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

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

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the CAM at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the CEC awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the CEC awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
    - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
    - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a copy of the letter of 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 CAM if during the course of the Agreement additional match funds are received.

- Notify the CAM 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 1.8 Identify and Obtain Required Permits

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

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the CEC budget for this task will be zero dollars, the Recipient 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 CAM at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
    - A list of the permits that identifies the:
        - Type of permit
        - Name, address and telephone number of the permitting jurisdictions or lead agencies
    - The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, provide the appropriate information on each permit and an updated schedule to the CAM.
- As permits are obtained, send a copy of each approved permit to the CAM.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 working days. Either of these events may trigger 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 1.9 Obtain and Execute Subawards

The goal of this task is to ensure quality products and to procure subrecipients 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.

The Recipient shall:

- Manage and coordinate subrecipient activities.
- If requested by the CAM, submit a draft of each subaward required to conduct the work under this Agreement to the CAM for review.
- If requested by the CAM, submit a final copy of the executed subaward.
- If Recipient intends to add new subrecipients or change subrecipients, then the Recipient shall notify the CAM.

Products:

- Letter describing the subawards needed, or stating that no subawards are required
- Draft subcontracts (if requested)
- Final subcontracts (if requested)

TECHNICAL TASKS

TASK 2 COMMUNITY OUTREACH AND KEY STAKEHOLDER ENGAGEMENT

The goal of this task is to bring together a broad and diverse stakeholder audience—including employees, customers, technology developers, community leaders, finance partners, agencies, and technical experts—to foster productive and thoughtful dialogue around a new transportation paradigm; identify challenges, risks, obstacles, and opportunities; and create systems and processes to reduce uncertainty.

The Recipient shall:

- Prepare a *List of Outreach Targets* to ensure a diverse stakeholder audience.
- Prepare a *Community and Stakeholder Engagement Plan* to identify the purpose of its engagement with communities and stakeholders and the goals and intended outcomes of the outreach by stakeholder segment.

- Engage electric utilities to support grid delivery, reliability, and resiliency. Engagement will include:
    - Outreach to major electric utilities where Recipient's travel centers are located
    - Discussions about existing or near-term programs managed by utilities to support the development of MD/HD ZEV infrastructure
    - Identification of opportunities and challenges associated with MD/HD ZEV infrastructure deployments
- Engage hydrogen providers to understand plans for hydrogen production and distribution. Engagement will include:
    - Outreach to major gas utilities where Recipient's travel centers are located
    - Outreach to major private-sector hydrogen producers
    - Discussions about existing or near-term programs managed by utilities to support the development of hydrogen-based MD/HD ZEV infrastructure
    - Identification of opportunities and challenges associated with hydrogen-based MD/HD ZEV infrastructure deployments
- Engage local jurisdictions and planning organizations to ensure they are involved in the planning and permitting of the infrastructure. Engagement will include:
    - Outreach to the planning departments where Recipient's travel centers are located.
    - Document actions or steps already adopted by the local jurisdiction and the impact of those actions or steps on the development of MD/HD ZEV infrastructure.
- Engage regional workplaces, business owners and operators, regional community-based organizations (CBOs), community leaders, California Native American Tribes, and potentially affected residents in the planning process and education on the benefits of ZEV transportation. Engagement will include:
    - Outreach to MD/HD truck fleet operators, industry associations, and individual truckers to understand their perspectives and concerns about the transition to MD/HD
    - Education about new and innovative technologies that solicit dialogue and conversation about ZEVs
    - Work with community colleges, CBOs and community leaders to develop workforce development strategies that will enable training, education, and readiness for the local community workforce to obtain the requisite knowledge, skills, and ability to develop, support, and maintain the MD/HD ZEV fleets.
- Develop an outreach approach tailored to local community, supported by education and outreach materials appropriate for potentially affected residents, in the languages needed for the community, to educate on the planning efforts and potential future impacts.
- Engage financial institutions to ensure they are educated, involved, and committed to participate in the implementation of the MD/HD ZEV infrastructure blueprint. Engagement will include:

  - Outreach to clean energy infrastructure financiers with a history of supporting the development, installation, and operation of renewable energy technologies including microgrids, light-duty ZEV infrastructure, and renewable fuels projects.
  - Discussions to understand new and innovative business models around energy-as-a-service, incentive and credit monetization, and third-party ZEV fueling operations.

- Engage with technology vendors to analyze the combination of technologies and systems that offer the best mix of economic, environmental, and technical performance specific to the project/region.
  - Explore innovative MD/HD charging and hydrogen refueling options to address potential infrastructure barriers. Technology options may include wireless charging, high-powered charging, overhead catenary systems, solar chargers, robotic chargers, mobile chargers/refuelers, curbside, streetlamp, and intersection chargers, or autonomous garages.
  - Include appropriate Vehicle-Grid Integration (VGI) standards and open standards-based network communications.
    - Include the ability to support emerging connectors and/or interfaces for heavy-duty vehicles, open standards-based network communications, the inclusion of appropriate VGI standards, and/or other methods for enhancing grid-reliability by providing data to utilities to predict charging behavior and associated impacts on the grid.
    - Include how the project integrates energy storage for the electricity grid or uses curtailed or dedicated renewable energy as a source for renewable hydrogen.
  - Include the use of interoperable MD/HD charging connectors and/or charging interfaces compatible with MD/HD vehicles sold by multiple original automotive equipment manufacturers for widespread use across California and North America.
  - Include other methods for enhancing grid-reliability by providing data to utilities to predict charging behavior and associated impacts on the grid.
- Prepare a *Community and Stakeholder Engagement Report* that includes:
  - Organizations, companies, and stakeholders that received outreach
  - A ZEV Ecosystem summary of strategic partners and business model innovations
  - Summary of the outcomes of such outreach (e.g. engaged in dialogue, declined to participate, did not respond)
  - Overview of topics discussed
  - Summary of the key findings aggregated by stakeholder segment

Products:

- List of Outreach Targets
- Community and Stakeholder Engagement Plan
- Community and Stakeholder Engagement Report

TASK 3 OPERATOR NEEDS AND INFRASTRUCTURE PERFORMANCE SPECIFICATIONS

The goal of this task is to identify and quantify fleet operator and driver needs and critical performance specifications that are important to Recipient's ultimate customers—MD/HD ZEV users. The task will be conducted concurrent to and will leverage stakeholder outreach initiated under Task 2.

The Recipient shall:

- As an extension of Task 2, query select stakeholders regarding critical performance specifications needed to support MD/HD ZEV adoption and associated infrastructure deployment.
- Prepare a *List of Critical Performance Specifications* that identifies all specifications targeted during outreach under this task.
- Outreach will specifically target:
    - MD/HD fleet owners and fleet managers, including those currently operating ZEVs and those who are not currently operating ZEVs, to better understand typical duty cycles, charging frequency, and need
    - ZEV developers, technicians, and maintenance specialists to help identify anticipated maintenance requirements relevant to Recipient's business model
    - MD/HD vehicle developers and / or OEMs to better understand vehicle specifications
    - MD/HD fleet administrators and business managers who understand their fleet's business model and can advise regarding specific / common MD/HD fleet needs and constraints related to ZEV adoption
- Through this outreach process, the project team will identify common needs and performance specifications which will include but may not be limited to:
    - Refueling and recharging frequency
    - ZEV percent of fleet and likely or possible ZEV adoption rates
    - Typical range and duty cycle
    - Charge or refueling time constraints
    - Safety concerns
    - Infrastructure availability
    - Charging or refueling needs by location / geography
    - Charging or refueling equipment compatibility
    - Charging or refueling infrastructure availability
    - Cost / price considerations

- Assemble, analyze, and document critical performance specifications for consideration under subsequent design and planning efforts.
- Prepare a *Critical Performance Specification Report* to document findings and present summary findings and numerical ranges, as applicable, for each of the critical performance specifications identified in the *List of Critical Performance Specifications*

Products:

- List of Critical Performance Specifications
- Critical Performance Specification Report

TASK 4 CONCEPTUAL TRAVEL CENTER DESIGN

The goal of this task is to utilize a planned station to advance understanding about how ZEV infrastructure may be deployed at travel centers on day one and future phased changes needed to accommodate industry ZEV trends. This task leverages the common elements of travel center service to express insights that can inform a portfolio-based approach to standards-based implementation at scale and subsequent professional design effort as appropriate to undertake investment.

The Recipient shall:

- Identify an appropriate facility as part of planned locations based on facility suitability to service ZEV MD/HD fleets within the State of California (e.g. priority State routes, high utilization).
- Review relevant standard design templates and operational practices relevant to vehicle fueling and service.
- Develop *Preliminary Design Documents* within the context of the existing Recipient's design standards for both electric MD/HD ZEV infrastructure and hydrogen MD/HD ZEV infrastructure.
    - Identify optimal locations at facilities for MD/HD ZEV infrastructure deployment and the rationale for being considered optimal including MD/HD vehicle use and drive patterns.
    - Consider MD/HD vehicle queuing and facility service / operational patterns to maximize and optimize the type and placement of ZEV infrastructure to support the MD/HD ZEVs.
    - Prepare conceptual layouts / sketch drawings of major infrastructure components (i.e. storage tanks, chargers, transformers) based on Recipient's agreed inputs of:
        - Low and high MD/HD ZEV service volumes
        - All battery electric direct-current fast charger (DCFC) service
        - Partial battery electric DCFC service combined with partial hydrogen fuel cell service
        - All hydrogen fuel cell service
    - Consider on site generation including renewable generation, batteries and backup generators for both day one and future phased changes.

  - Leverage the benefit of the auto Fast EV charging already planned onsite. Plan for future MD/HD charging.

- Prepare *Cost Estimate & High Level Economic Evaluation* for preferred client scenario to inform concept screening and planning (assumed Class 4 or 5 per AACE 18R-97 Cost Estimate Classification System).
- Check energy service with utility service provider to understand day one and future electric service capacity and summarize any off-site cost implications.
- Consider tariff structures to enable MD/HD charging plus DER's.
- Prepare feasibility analysis to demonstrate pay back of investments.
- Check set-back distances consistent with vehicle circulation/operational and fueling safety requirements.
- Check energy service with utility service provider and summarize any off-site cost implications.
- Summarize design insights that may influence scalability to other sites (i.e. unique site factors, climate variability, pinch points, etc.).
- Scenario test for resilience of fueling services in event of energy supply disruption and potential size, cost, and business impacts.

Products:

- Preliminary Design Layout
- Cost Estimate & High Level Economic Evaluation

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

TASK 5 RESILIENCY PLANNING

The goal of this task is to advance the understanding about how travel centers can be a reliable, resilient resource to the MD/HD industry for MD/HD ZEV charging and refueling even during grid-down events, other potential service disruptions, and emergency scenarios.

The Recipient shall:

- Gather information and review, including, but not limited to:
  - State of California and relevant national guidance on the role of service centers in resilience planning / emergency response – with specific focus on ZEV growth in MD/HD vehicles (collected in Task 2 outreach to Planning Organizations and Utilities)
  - Resilience and business continuity plans, including performance priorities, communication pathways, risk appetite (collected in Task 2 outreach to Recipient's Internal Divisions)
  - Data related to historic outages and energy supply reliability (collected in Task 2 outreach to Utilities)
- Identify Utility System Disruption Scenarios (i.e. duration, scale), plausible hazards, and plausible emergency scenarios, and summary qualitative implications of service disruption, exclusive of life safety impacts, (i.e. vehicles not serviced, rationed service).

- Propose a *Resiliency Framework Approach* to inform key stakeholders about policy and planning effort that includes a position on the suitable role of service centers in a resilient California transportation system and the business implications of this service.

Products:

- Resiliency Framework Approach

TASK 6 MAINTAINING FLEXIBILITY FOR FUTURE TECHNOLOGICAL IMPROVEMENTS

The goal of this task is to segment phased portions of the overall MD/HD ZEV infrastructure buildout and develop a prioritization methodology for advanced MD/HD ZEV infrastructure while maintaining flexibility for future technological improvements and reducing risk that early investment is abandoned.

The Recipient shall:

- Evaluate how the charging/refueling requirements of the site will likely change over time with the anticipated changes to the demands of ZEV MD/HD vehicles using Recipient's facilities.
- Ensure flexibility within design to incorporate future technologies.
    - For example, ensuring there is sufficient space for hydrogen refueling infrastructure. This may include coordination with the Pacific Northwest National Laboratory, the Center for Hydrogen Safety's Hydrogen Safety Panel, and hydrogen fuel producers to inform a safe design is capable on the location in the future.
- Identify analytical tools, software applications, and data needed to improve future MD/HD ZEV infrastructure planning activities.
- Identify each task or area of responsibility required of the project partners and stakeholder groups to develop a replicable approach for other fleets transitioning to zero-emission.
- Identify the actions and milestones needed for implementation of MD/HD ZEVs and ZEV charging or refueling infrastructure, as follows:
    - Quantitative goals and specific, realistic timelines for installation and implementation of MD/HD electric vehicle charging and/or hydrogen refueling infrastructure within the project.
- Develop a paper entitled *Maintaining Flexibility for Future Technological Improvements* that forecasts the future requirements of the facility and how this has informed design. The paper is expected to include:
    - Phased approach to infrastructure deployment
    - Description of the approach to determining appropriate phases
    - Incorporation of quantitative goals, actions, and milestones

Products:

- Maintaining Flexibility for Future Technological Improvements

TASK 7 EVALUATING COMMUNITY IMPACTS

The goal of this task is to evaluate how the transition will impact California communities, in terms of job provision, equity, and reduced emissions. This will include considering how the benefits associated with the transition can be enhanced.

The Recipient shall:

- Identify maintenance needs for MD/HD ZEV infrastructure and for MD/HD ZEVs as relevant to Pilot's business model.
- Identify and assemble a *Summary of Workforce Education and Training Resources* that summarizes those resources—available or needed for future development—that will be needed to prepare maintenance technicians for MD/HD ZEVs and associated charging / refueling infrastructure, as relevant to Recipient's business model.
- Summarize the types of jobs that will be created for the local community.
- Identify and assemble a *Summary of the GHG emissions reduction goals*, including goals to reduce greenhouse gas (GHG) emissions, criteria air pollutants, and toxic air contaminants for the region, and the emitters at the local level that would need to be targeted.
- Identify and assemble a *Summary of the qualitative benefits to disadvantaged communities* (DACs), low-income communities, priority populations, and/or tribal lands to the maximum extent possible. Address health and safety, access and education, financial benefits, economic development, and consumer protection.

Products:

- Summary of Workforce Education and Training Resources
- Summary of the GHG emissions reduction goals
- Summary of the qualitative benefits to disadvantageous communities

TASK 8 PROJECT FACT SHEET

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

The Recipient shall:

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

Products:

- Initial Project Fact Sheet
- Final Project Fact Sheet

- High Quality Digital Photographs

TASK 9 BLUEPRINT

The goal of this task is to formalize the information gathered under Tasks 2 through 8, into a formal Blueprint that can be used internally by the project team and shared with key stakeholders.

The Recipient shall:

- Prepare a *Blueprint Outline* that conveys the intended structure of the Blueprint and the intended goals and outcomes of major sections.
- Integrate findings from the Technical Tasks into the Blueprint Outline.
- Complete *Blueprint draft*.
- Incorporate feedback as provided by the CAM.
- Prepare *Blueprint final*.

Products:

- Blueprint Outline
- Blueprint (draft and final)

RESOLUTION NO: 22-0216-1c

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: PILOT TRAVEL CENTERS LLC (DBA PILOT FLYING J)

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

RESOLVED, that the CEC approves Agreement ARV-21-037 with Pilot Travel Centers LLC for a $200,000 grant to develop a plan of action and milestones for deployment of medium- and heavy duty (MD/HD) ZEV infrastructure; advance the understanding about how travel centers can be a reliable, resilient resource for MD/HD ZEV charging and refueling; 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 February 16, 2022.
AYE:
NAY:
ABSENT:
ABSTAIN:

_____
Liza Lopez
Secretariat