



STATE OF CALIFORNIA

**GRANT REQUEST FORM (GRF)**

CEC-270 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

**A) New Agreement # ARV-21-014 (to be completed by CGL office)**

B) Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Marc Perry	27	916-931-9424

C) Recipient's Legal Name	Federal ID #
South Coast Air Quality Management District	95-3099419

D) Title of Project
California Joint Electric Truck Scaling Initiative

**E) Term and Amount**

Start Date	End Date	Amount
07 / 15 / 2021	3 / 31 / 2025	\$ 10,964,955

**F) Business Meeting Information**

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

Proposed Business Meeting Date 7 / 15 / 2021 ☐ Consent ☒ Discussion

Business Meeting Presenter Marc Perry Time Needed: 5 minutes

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

**Agenda Item Subject and Description:**

Proposed resolution approving Agreement ARV-21-014 with South Coast Air Quality Management District (SCAQMD) for a \$10,964,955 grant to purchase and install 50 direct current fast chargers (DCFC), solar power generation equipment, and distributed energy resources equipment, and to conduct workforce training and development and community outreach, and adopting staff's determination that this action is exempt from CEQA. The proposed charging, solar generation, and distributed energy resources equipment will be capable of charging and supporting the pilot of 100 on-road, Class-8 battery electric trucks that are being funded by the California Air Resources Board (CARB). (Clean Transportation Program funding). Contact: Marc Perry. (Staff Presentation: 5 minutes)

**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: Cal. Code of Regulations (CCR) Title 14, Sections 15301 ("Existing Facilities"), 15303 ("New Construction



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or Conversion of Small Structures”), 15304 (“Minor Alterations to Land”), 15306 (“Information Collection”).

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

Explain reason why Agreement is exempt under the above section:

14 CCR § 15301 provides for the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. This project is categorically exempt under 14 CCR 15301 because the installation of DCFC equipment at both locations and the solar energy generation panels, and battery energy storage system at the Ontario location involve only minor physical modifications or alterations to the existing structures and electrical conveyances.

14 CCR § 15303 provides for the 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. This project is categorically exempt under 14 CCR 15303 because the new associated with the installation and placement of prefabricated DCFC equipment and infrastructure, solar panels, and associated battery storage equipment involve only the construction of small structures.

14 CCR § 15304 provides for 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 and agricultural purposes. This project is categorically exempt under 14 CCR 15304 because the paving and concrete activities associated with the installation and placement of prefabricated DCFC equipment and infrastructure, solar panels, and associated battery storage equipment are minor and will restore the previously disturbed surfaces.

14 CCR § 15306 provides for basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. This project is categorically exempt under 14 CCR 15306 because it requires collection of operational data from the DCFC utilized for charging the battery-electric trucks, the solar energy generation, and the battery energy storage system.

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
See Attached	\$ 10,500,979
	\$



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

<b>Legal Company Name:</b>
Schneider National Carriers, Inc.
The Regents of the University of California, on behalf of the Riverside Campus

**J) Budget Information**

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
ARFVTP	FY 18/19	601.118K	\$6,000,000
ARFVTP	FY 19/20	601.118L	\$4,864,955
ARFVTP	FY 20/21	601.118M	\$100,000

R&amp;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**

Name: Anish Pathak

Address: 21865 Copley Drive

City, State, Zip: Diamond Bar, CA  
91765

Phone: (909) 396-2430

E-Mail: apathak@aqmd.gov

**2. Recipient's Project Manager**

Name: Patricia Kwon

Address: 21865 Copley Drive

City, State, Zip: Diamond Bar, CA  
91765

Phone: (909) 396-3065

E-Mail: pkwon@aqmd.gov

**L) Selection Process Used**☒ Competitive Solicitation Solicitation #: GFO-20-606☐ First Come First Served Solicitation Solicitation #: - -**M) 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 type="checkbox"/> N/A <input checked="" type="checkbox"/> Attached |
| 5. CEQA Documentation                               | <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Attached |

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**Agreement Manager**

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**Date**

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**Office Manager**

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**Date**

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**Deputy Director**

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**Date**

## Subcontractors' Legal Names and Budget Amounts

		CEC Reimbursable Amount	CEC Match Share Amount
<b>Subcontractor:</b>	<b>NFI Interactive Logistics, LLC</b>	<b>\$ 6,819,859</b>	<b>\$ 6,371,105</b>
Subcontract:	Electrify America, LLC dba Electrify Commercial	\$ 531,750	\$ 70,200
Subcontract:	MaxGen Energy Services, LLC	\$ 99,000	\$ 19,200
	Perficient, Inc.	\$ 15,000	\$ -
	TBD (Battery Maintenance)	\$ 99,000	\$ -
Subcontract:	ClearBlue Technologies Group	\$ 99,097	\$ 400,905
Subcontract:	Southern California Edison Company	\$ -	\$ 2,500,000
Subcontract:	Gladstein, Neandross & Associates, LLC	\$ 384,411	\$ -
Subcontract:	TBD (Maintenance Facility Construction)	\$ -	\$ 2,000,000
Subcontract:	TBD (Solar Equipment Purchase and Installation)	\$ 2,000,000	\$ -
<b>Subcontractor:</b>	<b>Daimler Trucks North America, LLC</b>	<b>\$ 1,729,811</b>	<b>\$ 5,941,988</b>
Subcontract:	Black and Veatch Corporation	\$ -	\$ 786,988
Subcontract:	Southern California Edison Company	\$ -	\$ 2,500,000
Subcontract:	Power Electronics USA, Inc.	\$ 99,000	\$ -
Subcontract:	Gladstein, Neandross & Associates, LLC	\$ 384,411	\$ -
<b>Subcontractor:</b>	<b>Ricardo, Inc.</b>	<b>\$ 1,351,924</b>	<b>\$ -</b>
Subcontract:	TBD (Data Logger Installation and Maintenance)	\$ 10,000	\$ -
<b>Subcontractor:</b>	<b>Green Paradigm Consulting, Inc.</b>	<b>\$ 194,749</b>	<b>\$ -</b>
<b>Subcontractor:</b>	<b>Gladstein, Neandross &amp; Associates, LLC</b>	<b>\$ 46,133</b>	<b>\$ -</b>
<b>Subcontractor:</b>	<b>The Regents of the University of California, on Behalf of the Riverside Campus</b>	<b>\$ -</b>	<b>\$ 99,500</b>
<b>Subcontractor:</b>	<b>Electric Power Research Institute, Inc.</b>	<b>\$ 99,950</b>	<b>\$ -</b>
<b>Subcontractor:</b>	<b>CALSTART, Inc.</b>	<b>\$ 99,000</b>	<b>\$ 62,466</b>
<b>Subcontractor:</b>	<b>The Coalition for Clean Air</b>	<b>\$ 99,553</b>	<b>\$ -</b>
<b>Subcontractor:</b>	<b>Los Angeles Cleantech Incubator</b>	<b>\$ 60,000</b>	<b>\$ 95,000</b>

## Exhibit A SCOPE OF WORK

### TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Purchase Battery-Electric Trucks
3		Prepare NFI Interactive Logistics, LLC (NFI) Site for Battery-Electric Trucks
4		Prepare Schneider National Carriers, Inc. (Schneider) Site for Battery-Electric Trucks
5	X	Charger Utilization Analysis
6		Engage with Industry Stakeholders
7		Engage with Environmental Groups, Community-Based Organizations, and Local Governments
8		Communications and Outreach
9	X	Zero-Emission Vehicle Workforce Training Plan
10	X	Data Collection and Analysis
11		Enhanced Data Collection and Analysis
12		Energy-Efficient Routing for Electric Trucks
13		Project Fact Sheet

### KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Joseph Impullitti (South Coast Air Quality Management District (SCAQMD)), Patricia Kwon (SCAQMD), Seungbum Ha (SCAQMD), Sam Cao (SCAQMD)	Green Paradigm Consulting, Inc. (GPCI)	

<b>Task #</b>	<b>Key Personnel</b>	<b>Key Subcontractor(s)</b>	<b>Key Partner(s)</b>
2	Bill Bliem (NFI Interactive Logistics, LLC (NFI)), James O'Leary (NFI), Jeremy Hock (Schneider National Carriers, Inc. (Schneider)), Jonathan Yan (Daimler Trucks North America, LLC (DTNA)), Keith Brandis (Volvo Trucks North America, Inc. (Volvo))	NFI, DTNA, Volvo	Schneider
3	Bill Bliem (NFI), James O'Leary (NFI), Jonathan Yan (DTNA), Keith Brandis (Volvo)	NFI, DTNA, Electrify America LLC dba Electrify Commercial (Electrify Commercial), Volvo	
4	Jeremy Hock (Schneider), Jonathan Yan (DTNA)	DTNA, Power Electronics USA Inc. (Power Electronics)	Schneider
5	John Halliwell (Electric Power Research Institute, Inc. (EPRI)), Watson Collins (EPRI)	EPRI, Power Electronics, Electrify Commercial	
6	Michelle Kinman (Los Angeles Cleantech Incubator (LACI)), Daniel Ferguson (LACI), Jack Symington (LACI), JoAnne Golden (Gladstein, Neandross & Associates, LLC (GNA))	LACI, GNA	
7	Joe Lyou (The Coalition for Clean Air (CCA))	CCA	
8	Sarah Gallagher (GNA)	GNA	
9	Daniel Ferguson (LACI), Sarah Gallagher (GNA)	LACI, GNA	

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
10	Piyush Bubna (Ricardo, Inc. (Ricardo)), Kevin Walkowicz (CALSTART, Inc. (CALSTART))	Ricardo, CALSTART	
11	Piyush Bubna (Ricardo), Kevin Walkowicz (CALSTART)	Ricardo, CALSTART	
12	Kanok Boriboonsomsin (UCR), Matthew Barth (UCR)	The Regents of the University of California, on behalf of the Riverside Campus (UCR)	
13	Joseph Impullitti (SCAQMD), Patricia Kwon (SCAQMD), JoAnne Golden (GNA)	GNA	

## GLOSSARY

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

Term/ Acronym	Definition
BET	Battery Electric Truck
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CARB	California Air Resources Board
CCA	The Coalition for Clean Air
CEC	California Energy Commission
CPR	Critical Project Review
Clean Transportation Program	Formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program
DAC	Disadvantaged Community
DCFC	Direct Current Fast Charger

<b>Term/ Acronym</b>	<b>Definition</b>
DER	Distributed Energy Resources
DTNA	Daimler Trucks North America, LLC
EPRI	Electric Power Research Institute, Inc.
EVSE	Electric Vehicle Supply Equipment (chargers)
EVSP	Electric Vehicle Service Provider
FTD	Fuels and Transportation Division
GHG	Greenhouse Gases
GNA	Gladstein, Neandross & Associates, LLC
kWh	Kilowatt Hour
LACI	Los Angeles Cleantech Incubator
NFI	NFI Interactive Logistics, LLC
OEM	Original Equipment Manufacturer
Recipient	South Coast Air Quality Management District
Ricardo	Ricardo, Inc.
SCAQMD	South Coast Air Quality Management District
Schneider	Schneider National Carriers, Inc.
UCR	The Regents of the University of California, on behalf of the Riverside Campus
Volvo	Volvo Trucks North America, Inc.
ZEV	Zero-Emission Vehicle



## **BACKGROUND**

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Clean Transportation Program (formerly known as the Alternative and Renewable Fuel and Vehicle Technology 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 policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the Program through January 1, 2024, and specifies that the CEC 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 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.

The CEC and the California Air Resources Board (CARB) issued GFO-20-606 entitled "Zero-Emission Drayage Truck and Infrastructure Pilot Project" under the CEC's Clean Transportation Program and CARB's FY 2019-20 Funding Plan for Clean Transportation Incentives (FY 2019-20 Funding Plan). CEC funding will support zero-emission vehicle infrastructure and installation, and workforce training and development. CARB funding will be allocated towards the purchase of on-road zero-emission Class 8 trucks. Other costs associated with administrative and data collection tasks will be supported by either CEC or CARB. To be eligible for funding under GFO-20-606, the projects must also be consistent with the CEC's current Clean Transportation Program Investment Plan and CARB's FY 2019-20 Funding Plan for Clean Transportation Incentives (FY 2019-20 Funding Plan). In response to GFO-20-606, the Recipient submitted Proposal #1, which was proposed for funding in the CEC's Notice of Proposed Awards on April 5, 2021. GFO-20-606 is hereby incorporated by reference into this Agreement in its 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. 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.

**NOTE:** Designation of agency by task. "CEC Task" or "CEC Sub-task" means a task or sub-task for which the Recipient's grant agreement with CEC governs; where Recipient's performance is due to the CEC; and where Recipient's reimbursable costs fall under the budget for the CEC-funded work. "CARB Task" or "CARB Sub-task" means a task or sub-task for which the Recipient's grant agreement with CARB governs; where Recipient's performance is due to CARB; and where Recipient's reimbursable costs fall under the budget for CARB-funded work. "Joint CEC and CARB Task" or "Joint CEC and CARB Sub-task" means a task or sub-task for which the Recipient's performance is due to both the CEC and CARB. Cost allocation for joint tasks is specified in the budgets.

**Problem Statement:**

Though vital to California residents, drayage and long-haul activities are a large source of greenhouse gases (GHG), criteria pollutant and toxic air contaminant emissions. Emissions from drayage and long-haul activities are a major obstacle in California's fight for energy security, climate change resiliency, and healthy air. To fully integrate zero-emission drayage, regional delivery, and long-haul trucks into the marketplace, the technology (*i.e.*, trucks and infrastructure) must be successfully demonstrated at scale and in a way that supports the industry at large in the transition to zero-emission operations.

**Goals of the Agreement:**

The goals of the CEC and CARB Grant Agreements are to advance the zero-emission Class 8 on-road technology and understanding of fleet dynamics when deploying many zero-emission trucks and supporting infrastructure. The CEC agreement will fund the installation of electric vehicle supply equipment (EVSE) and infrastructure, solar panels and energy storage system, and implement workforce development and training activities to support the successful deployment of 100 Class 8 battery-electric trucks (BETs) in two leading fleets that are being funded under a separate agreement from CARB. The project will show significant emissions reductions in disadvantaged communities (DACs) and low-income communities as well as providing additional economic, environmental, and public health benefits.

## **Objectives of the Agreement:**

The objectives of the CEC and CARB Grant Agreements are to leverage the capabilities and expertise of the project team to deploy 100 BETs and 50 EVSE with two leading fleets as part of a comprehensive initiative to advance zero-emission technology, assess fleet dynamics and develop best practices for scaled deployments and support truck manufacturers in achieving economies of scale in their production. Specifically, the project team will:

- Deploy 100 BETs in drayage and regional delivery operations.
- Deploy 50 Direct Current Fast Chargers (DCFC) to support the BETs.
- Outreach to area businesses and cleantech startups to enable broader participation in transportation electrification.
- Address a variety of project stakeholders (cleantech startups, original equipment manufacturers (OEMs), service providers, fleets) through two workshops to identify technology, infrastructure, policy, funding and/or behavioral barriers for scaling BET adoption for drayage applications.
- Work with project stakeholders to provide planning requirements and technical assessments for five additional fleet electrification sites in the South Coast Air Basin.
- Gather feedback during the project period from environmental and public health groups, community-based organizations and environmental justice organizations, and local government leaders.
- Distribute information on the project's environmental and economic benefits, and promote project activities through literature drops, newsletters, a project website, press conferences, webinars, open houses, ribbon cutting events, and leveraging project partners, community organizations, and other associations.
- Collect and analyze operational data from the BETs, EVSE, and distributed energy resources (DER) to support OEMs, charging providers, utilities, agencies, and other stakeholders to better understand barriers of large-scale heavy-duty BET deployments.
- Conduct zero-emission vehicle (ZEV) workforce development and training activities; collect and analyze data on ZEV workforce development and training activities conducted by project partners; develop key performance indicators and metrics for driver operations, truck maintenance, charger maintenance; and develop ZEV Workforce Plan.

## **TASK 1 ADMINISTRATION (Joint CEC and CARB Task)**

### **Task 1.1 Attend Kick-off Meeting (Joint CEC and CARB Sub-task)**

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement. The Commission Agreement Manager (CAM) and CARB project liaison 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 CARB project liaison, the Commission Agreement Officer (CAO), and a representative of the CEC Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM or CARB project liaison 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
  - Quarterly 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 (Joint CEC and CARB Sub-task)**

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

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

Meeting participants include the CAM, the CARB project liaison 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 or CARB project liaison to provide support to the CEC and CARB.

### **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, including video conferencing.
- 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 and the CARB project liaison conclude 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
- Written determination

**Recipient Product:**

- CPR Report(s)

**Task 1.3 Final Meeting (Joint CEC and CARB Sub-task)**

*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, the CAO, the CAM, and the CARB project liaison. 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 and the CARB project liaison.

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 and the CARB project liaison will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the CAM, the CARB project liaison, and the CAO about the following Agreement closeout items:

- What to do with any equipment purchased with CEC funds (Options)

- CEC'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 Quarterly Progress Reports (Joint CEC and CARB Sub-task)**

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. Each progress report is due to the CAM and the CARB project liaison 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.
- In the first Quarterly 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:**

- Quarterly Progress Reports



### **Task 1.5 Final Report (Joint CEC and CARB Sub-task)**

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 and CARB project liaison 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 electronic copy of the Final Report with the final invoice to the CAM and the CARB project liaison and one bound copy of the Final Report to the CARB project liaison.

#### **Products:**

- Outline of the Final Report
- Draft Final Report
- Final Report

### **Task 1.6 Identify and Obtain Matching Funds (Joint CEC and CARB Sub-task)**

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 shall be spent concurrently or in advance of CEC 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 CAM and the CARB project liaison 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 and CARB project liaison if during the course of the Agreement additional match funds are received.
- Notify the CAM and CARB project liaison 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 (Joint CEC and CARB Sub-task)**

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 and CARB project liaison 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 and CARB project liaison.
- As permits are obtained, send a copy of each approved permit to the CAM and CARB project liaison.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM and CARB project liaison 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)

**Task 1.8 Obtain and Execute Subcontracts (Joint CEC and CARB Sub-task)**

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 CEC 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 and CARB project liaison for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM and CARB project liaison.

**Products:**

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

## **TASK 2 PURCHASE BATTERY ELECTRIC-TRUCKS (CARB Task)**

The goal of this task is to purchase all project trucks. 100 BETs will be deployed at two fleets (50 trucks per fleet). Trucks will be delivered in phases and all BETs will be delivered prior to the June 15, 2023 deadline.

### **Task 2.1 CARB Executive Order for Each Truck Model that is Funded by the Project (CARB Sub-task)**

#### **The Recipient shall:**

- Ensure that each BET model has a CARB Executive Order.

#### **Products:**

- CARB Executive Order(s) by June 1, 2022

### **Task 2.2 Purchase of Battery-Electric Trucks (CARB Sub-task)**

#### **The Recipient shall:**

- Finalize vehicle specifications and place orders.
- Finalize truck delivery schedule.
- Order and receive 50 BETs in multiple phases for NFI.
- Order and receive 50 BETs in multiple phases for Schneider.
- Provide Department of Motor Vehicles (DMV) registrations and Vehicle Identification Numbers, and odometer readings.
- Provide high-quality photographs of each BET (clearly labeled with unique identification numbers and funding agencies' decals placed on driver side).

#### **Products:**

- Photographs
- Vehicle registrations
- Odometer readings
- Vehicle Identification Numbers
- Letter from the Fleet Indicating Formal Acceptance

## **TASK 3 PREPARE NFI SITE FOR BATTERY-ELECTRIC TRUCKS (Joint CEC and CARB Task)**

### **Task 3.1 Infrastructure Make-Ready and Installation (CEC Sub-task)**

The goal of this task is to integrate a series of freight facility improvements (*i.e.*, EVSE installation, maintenance facility construction) to prepare for complete electrification of NFI Interactive Logistics, LLC's (NFI) Ontario site. The make-ready activities will include utility coordination, initial applications, and site permitting. There will be two phases of

EVSE deployment so that the project may deploy newer, faster charging, third-party inspector (such as Underwriter Laboratories (UL)) certified EVSE as it becomes commercially available, for a total of at least 34 DCFCs. BET and EVSE deployment is coordinated: when the first phase of BETs is received, EVSE will be ready to support the deployment. The second phase of EVSE will be installed before the final phase of BET deployment. This task includes ongoing maintenance and operation of EVSE.

**The Recipient shall:**

- Finalize equipment specifications for both phases.
- Finalize EVSE delivery schedule, coordinated with BET deployment.
- Submit Final Equipment List to the CAM.
- Purchase EVSE, Phase 1.
- Receive EVSE, Phase 1.
- Submit Electric Vehicle Infrastructure Training Program (EVITP) Certification Numbers of each EVITP-certified electrician that installed electric vehicle charging infrastructure or equipment. EVITP Certification Numbers are not required to be submitted if AB 841 requirements do not apply to the project.
- Install EVSE, Phase 1.
- Inspect and test EVSE and networking software with a charging event.
- Commission EVSE. Complete a Commissioning Report for Phase 1 and submit to the CAM.
- Submit orders to EVSE providers, Phase 2.
- Receive EVSE, Phase 2.
- Install EVSE, Phase 2.
- Inspect and test EVSE and networking software with a charging event.
- Submit an AB 841 Certification that certifies the project has complied with all AB 841 (Ting, Chapter 372, Statutes of 2020) requirements specified in Exhibit C or describes why the AB 841 requirements do not apply to the project. The certification shall be signed by Recipient's authorized representative. Although AB 841 becomes effective January 1, 2022, as a policy matter the CEC is applying the EVITP certification requirements to project work funded under this Agreement, regardless of whether it might be performed prior to January 1, 2022, unless an exception applies.
- Commission EVSE. Complete a Commissioning Report for Phase 2 and submit to the CAM.
- Provide high-quality photos of each EVSE for Phases 1 and 2 (clearly labeled with unique identification numbers).

- Hold monthly project status update calls with project partners during active construction (depending on level of activity).
- Include in quarterly reports information from EVSE networking software on charging events, charger ID, vehicle ID, kilowatt hour (kWh) dispensed, date/time, duration, vehicles miles traveled (if available), maintenance issues and their resolution, in Excel file format.

**Products:**

- Final Equipment List
- EVITP Certification Numbers of each EVITP-certified electrician
- High-quality photos of completed construction and of installed EVSE (Phase 1)
- Commissioning Report (Phase 1)
- High-quality photos of completed construction and of installed EVSE (Phase 2)
- AB 841 Certification
- Commissioning Report (Phase 2)

**Task 3.2 Install Distributed Energy Resources (DER) (CEC Sub-task)**

The goal of this task is to procure and install the energy storage, generation, and solar equipment. The DER operations will occur in a single Phase and will be completed between the first and second truck delivery (and thus infrastructure development). This task includes ongoing maintenance and operation of the energy storage, generation, and solar equipment.

**The Recipient shall:**

- Finalize DER equipment specifications.
- Submit Final Equipment List to the CAM.
- Submit order requests and purchase DER equipment.
- Finalize DER equipment delivery schedule.
- Receive DER equipment.
- Install DER equipment.
- Inspect and test DER equipment and microgrid software.
- Commission DER equipment and microgrid software. Complete a Commissioning Report and submit to the CAM.
- Provide high-quality photos of installed DER equipment (clearly labeled with unique identification numbers to the CAM).
- Hold monthly project status update calls with project partners during active construction (depending on level of activity).

- Include in quarterly reports information from EVSE networking software on charging events, charger ID, vehicle ID, kW dispensed (per event and monthly), date and time of each charging event, duration of each charging event, vehicle miles traveled (if available), as well as reports from microgrid, solar, and/or energy storage software on performance including maximum energy storage in kWh, actual energy storage in kWh, energy production in kW, and maintenance issues and their resolution, in Excel file format.

**Products:**

- Final Equipment List
- High-quality photos of DER equipment
- Commissioning Report

**Task 3.3 Operate Vehicles (CARB Sub-task)**

The goal of this task is for the NFI fleet to operate all 50 BETs procured under the corresponding CARB agreement for a minimum of 12 months, beginning when the first truck is delivered until the last truck delivered concludes 12 months of data collection. This task includes all work necessary to legally operate BETs on California roadways.

**The Recipient shall:**

- Operate all 50 BETs for a minimum of 12 months, beginning from delivery of the first truck during the project period.
- Submit quarterly NFI BET Fleet Operation reports, including mileage and maintenance logs on each BET.

**Products:**

- NFI BET Fleet Operation Reports

**Task 3.4 Build Electric Truck Maintenance Shop (CARB Sub-task)**

The goal of this task to construct a truck maintenance shop designed specifically for BET maintenance for the fleet's operational and maintenance needs.

**The Recipient shall:**

- Finalize designs and engineering requirements for BET maintenance shop.
- Submit copies of final approved designs to the CAM and the CARB project liaison.
- Complete construction of BET maintenance shop building.
- Procure all required equipment and supplies.
- Complete final building inspection with the City of Ontario. Submit copies of final approved building inspection to the CAM and the CARB project liaison.

- Hold monthly project status update calls with project partners during active construction (depending on level of activity).
- Take high quality photographs of BET maintenance shop building upon completion.
- Report on construction activities in the Quarterly Progress Reports specified in Task 1.4.

**Products:**

- Final approved designs
- Final building inspection report
- High quality photographs of the interior and exterior of the building

**TASK 4 PREPARE SCHNEIDER SITE FOR BATTERY-ELECTRIC TRUCKS (Joint CEC and CARB Task)**

**Task 4.1 Infrastructure Make-Ready and Installation (CEC Sub-task)**

The goal of this task is to integrate a series of freight facility improvements (i.e., EVSE installation) to prepare for large-scale BET deployment at Schneider National Carriers, Inc.'s (Schneider) South El Monte Intermodal yard. The make-ready activities will include utility coordination, initial applications, and site permitting. BET and EVSE deployment will be coordinated such that when BETs are received, EVSE will be ready to support the deployment. This task includes the purchase, installation, and ongoing maintenance and operation of at least 16 DCFCs.

**The Recipient shall:**

- Finalize equipment specifications.
- Finalize EVSE delivery schedule, coordinated with BET deployment.
- Submit Final Equipment List to the CAM.
- Purchase EVSE.
- Receive EVSE.
- Submit Electric Vehicle Infrastructure Training Program (EVITP) Certification Numbers of each EVITP-certified electrician that installed electric vehicle charging infrastructure or equipment. EVITP Certification Numbers are not required to be submitted if AB 841 requirements do not apply to the project.
- Install EVSE.
- Inspect and test EVSE and networking software with a charging event.
- Submit an AB 841 Certification that certifies the project has complied with all AB 841 (Ting, Chapter 372, Statutes of 2020) requirements specified in Exhibit C or describes why the AB 841 requirements do not apply to the project. The



certification shall be signed by Recipient's authorized representative. Although AB 841 becomes effective January 1, 2022, as a policy matter the CEC is applying the EVITP certification requirements to project work funded under this Agreement, regardless of whether it might be performed prior to January 1, 2022, unless an exception applies.

- Commission EVSE.
- Complete a Commissioning Report and submit to the CAM.
- Provide high-quality photos of each EVSE (clearly labeled with unique identification numbers) to the CAM.
- Hold monthly project status update calls with project partners during active construction (depending on level of activity).
- Include in quarterly reports information from EVSE networking software on charging events, charger ID, vehicle ID, kW dispensed (per event and monthly), date and time of each charging event, duration of each charging event, vehicle miles traveled (if available), in Excel file format.

**Products:**

- Final Equipment List
- EVITP Certification Numbers of each EVITP-certified electrician
- High-quality photos of completed construction and of installed EVSE
- AB 841 Certification
- Commissioning Report

**Task 4.2 Operate Vehicles (CARB Sub-task)**

The goal of this task is for the Schneider fleet to operate all 50 BETs procured under the corresponding CARB agreement for a minimum of 12 months, beginning when the first truck is delivered until the last truck delivered concludes 12 months of data collection. This task includes all work necessary to legally operate BETs on California roadways.

**The Recipient shall:**

- Operate all 50 BETs for a minimum of 12 months, beginning from delivery of the first truck during the project period.
- Submit quarterly Schneider BET Fleet Operation Reports, including mileage and maintenance logs on each BET.

**Products:**

- Schneider BET Fleet Operations Reports

**TASK 5 CHARGER UTILIZATION ANALYSIS (CEC Task)**

The goal of this task is to collect and analyze project data. The project team will install and maintain all necessary equipment to collect data on recharging events. Data collected will be analyzed to inform stakeholders on requirements, grid impacts, cost/benefit, environmental impacts, and ratepayer benefits for the installation of HD EVSE.

**The Recipient shall:**

- Create and manage a stakeholder data coordination working group involving OEMs, EVSE manufacturers, utilities and EVSE service providers (EVSPs), as well as CEC, CARB.
- Define and document data and analytics requirements as well as technology architecture.
- Ensure the data collection equipment works with the vehicles being demonstrated for this project.
- Coordinate with project partners on data to be collected.
- Perform the data analysis to inform grid planners, OEMs, fleet operators, charging equipment manufacturers and EVSPs on requirements and grid impacts, and to inform policymakers on cost/benefit, environmental impact, and ratepayer benefits.
- Participate in project partner meetings as required.
- Complete Charger Utilization Analysis Report on data collection methods, analysis, and knowledge findings created and provide it to the CAM.

**Products:**

- Charger Utilization Analysis Report

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

**TASK 6 ENGAGE WITH INDUSTRY STAKEHOLDERS (CEC Task)**

**Task 6.1 Convene Workshops with Area Businesses and Decision Makers (CEC Sub-task)**

The goal of this task is to organize two workshops aimed at identifying technology, infrastructure technology, policy, funding, and/or behavioral barriers to the innovation needs for scaling electric truck adoption for drayage and regional haul. The project team will ensure that attendees of the workshops include startups, OEMs, service providers, fleets, and other regional stakeholders. The project team will emphasize outreach to startups for participation in the workshops to maximize their ability to engage in the battery electric vehicle and infrastructure markets.

**The Recipient shall:**

- Design workshops.
- Develop and manage invite list.
- Secure speakers.
- Facilitate discussion.
- Ensure robust participation.
- Submit meeting agendas and attendance logs to the CAM.
- Convene first workshop once the EVSE for the NFI and Schneider sites are installed and connected to the electricity grid.
- Convene the second workshop once trucks have begun to operate out of the sites and there is sufficient experience and data to draw upon from the daily operations at the sites.
- Provide a written Summary Report following the two events, including major takeaways, action items for the project team, and suggestions to industry and policy makers.

**Products:**

- Meeting agendas and attendance logs
- Summary Report on first and second workshop

**Task 6.2 Assess Opportunities for Project Momentum (CEC Sub-task)**

The goal of this task is to work with stakeholders to identify and provide planning requirements and technical assessments on five additional fleet electrification opportunities in the South Coast Air Basin.

**The Recipient shall:**

- Identify a list of key project stakeholders.
- Convene stakeholder group in meetings to assess opportunities for building upon the momentum of this project via the creation of public access drayage truck charging depots.
- Submit meeting minutes and attendance logs from all discussions with stakeholders to the CAM.
- Identify draft list sites that could be strong options for further investment.
- Refine list of draft sites to five.
- Present final list of five sites as well as a planning requirements and technical assessment on five fleet locations that could deploy fast charging infrastructure to support Class 8 drayage trucks in the South Coast Air Basin.

- Produce a Draft and Final Planning and Technical Assessment and provide to the CAM.

**Products:**

- Meeting minutes from all discussions with stakeholders and attendance logs
- Draft Planning and Technical Assessment
- Final Planning and Technical Assessment

**TASK 7 ENGAGE WITH ENVIRONMENTAL GROUPS, COMMUNITY-BASED ORGANIZATIONS, AND LOCAL GOVERNMENTS (CEC Task)**

**Task 7.1 Convene Environmental Groups, Community-Based Organizations, and Local Governments through Meetings (CEC Sub-task)**

The goal of this task is to host five meetings with environmental and public health groups, five meetings with community-based organizations and environmental justice groups, and five meetings with local government leaders to gather feedback on the charging infrastructure portion of the project, totaling 15 meetings. The project team will prepare presentation materials for each of the groups and schedule each meeting around major project milestones.

**The Recipient shall:**

- Identify a list of key environmental and public health group stakeholders and actively manage to invite additional stakeholders as identified for subsequent meetings.
- Identify a list of key community-based and environmental justice organizations and actively manage to invite additional stakeholders as identified for subsequent meetings.
- Identify a list of key local government leaders and actively manage to invite additional local government stakeholders as identified for subsequent meetings.
- Work with project partners on content, key topics and/or talking points on issues of concern to residents in disadvantaged communities that are related to environmental and economic benefits of the project.
- Provide meeting agendas, minutes, and attendance logs to the CAM.
- Prepare presentation materials for each meeting. Provide copies to the CAM.
- Finalize meeting schedule based on project milestones.
- Facilitate discussions.
- Gather feedback at each meeting.
- Submit a report documenting feedback from meetings to the CAM.

**Products:**

- Meeting agendas, minutes, and attendee logs
- Materials presented at each meeting
- Report on feedback from each meeting

### **Task 7.2 Newsletter and Literature Distribution (CEC Sub-task)**

The goal of this task is to create and distribute newsletters and literature on environmental and economic benefits of the infrastructure portion of the project, and related opportunities for community residents. The project team will distribute literature around major project milestones (infrastructure installed; first truck delivered; all trucks deployed, etc.).

#### **The Recipient shall:**

- Work with project partners on developing the target market and content for newsletter and literature/collateral capturing environmental and economic benefits of the project, in a way that successfully communicates with residents in disadvantaged communities.
- Create a draft newsletter on project benefits and collect feedback from project partners.
- Finalize newsletter.
- Distribute newsletter to targeted organizations, associations, and additional outreach channels for effective circulation.
- Create draft literature on environmental and economic benefits from project activities (infrastructure installed; first truck delivered; all trucks deployed, etc.).
- Finalize literature on environmental and economic benefits from project activities (infrastructure installed; first truck delivered; all trucks deployed, etc.).
- Distribute literature on environmental and economic benefits from project activities (infrastructure installed; first truck delivered; all trucks deployed, etc.) to targeted organizations, associations, and additional outreach channels for effective circulation.
- Provide copies of all newsletter and literature distribution materials created to the CAM.

#### **Products:**

- Copies of all newsletter and literature distribution materials created

## **TASK 8 COMMUNICATIONS AND OUTREACH (Joint CEC and CARB Task)**

### **Task 8.1 Conduct Media Relations (Joint CEC and CARB Sub-task)**

The goal of this task is to spotlight ongoing project milestones and achievements. The project team will issue a series of media releases, as well as secure placement of thought leadership articles and media interviews for key team members. Target media outlets will include influential transportation trade publications and regional outlets.

**The Recipient shall:**

- Develop press release schedule.
- Develop draft press releases and submit to the CAM and CARB project liaison for CEC Media Office review and approval.
- Release press releases around major project milestones. Provide copies of all press releases to the CAM and CARB project liaison.
- Secure executive interview(s) in regional press and thought leadership article(s) in trade publication(s)/websites covering major project milestones. Provide copies to the CAM and CARB project liaison.
- Develop and release press releases announcing event agenda, key speakers and how to participate for project meetings, workshops, and other events (i.e., Policy workshops). Provide copies to the CAM and CARB project liaison.

**Products:**

- Copy of press releases promoting major project milestones
- Copy of published thought leadership articles and executive interviews
- Copy of press releases announcing policy workshops

**Task 8.2 Hold Media Events and Open Houses (Joint CEC and CARB Sub-task)**

The goal of this task is to further the media coverage received and bolster community interest/engagement. The project team will hold a series of interactive events—including ribbon cuttings and open houses—to highlight key infrastructure deployment milestones, such as the microgrid installation. The events may include technology demonstrations, educational presentations, and ride and drives for key stakeholders. Some events may be held virtually to allow for a larger audience or to address any potential health-based restrictions on in-person events.

**The Recipient shall:**

- Develop a media event and open house schedule.
- Submit draft copies of materials for the press conferences to the CAM and CARB project liaison for CEC Media Office review and approval.
- Hold press conferences to announce the project in tandem with a major in-person or digital industry event or conference (e.g., ACT Expo).

- Submit copies of materials used during press conferences to the CAM and CARB project liaison.
- Host ribbon cutting/open house with elected officials and key transportation stakeholders around major project milestones (i.e., DER installation).
- Host educational open house with elected officials, key stakeholders, and commercial truck fleets interested in truck electrification around major project milestones (100% ZEV Fleet Goal).
- Take photographs of ribbon cutting events and open houses. Submit to the CAM and CARB project liaison.
- Provide list of educational open house attendees to the CAM and CARB project liaison.

**Products:**

- Copy of materials used during press conferences
- Photos of ribbon cutting and open houses
- List of attendees at open houses

**Task 8.3 Project Partner, Community Based Organizations, and Associations Outreach (Joint CEC and CARB Sub-task)**

The goal of this task is to help further extend the reach of the outreach and education campaign. The project partners will be provided ongoing communications resources to spotlight major project milestones, regarding development and deployment of charging infrastructure. A targeted list of industry associations will be tapped for outreach support to specific audiences (e.g., fleets, community members), including the California Trucking Association, California Electric Transportation Coalition, Electric Drive Transportation Association, North American Council for Freight Efficiency, Breathe Southern California, Reach Out, the Harbor Trucking Association, Forth Mobility, and more.

**The Recipient shall:**

- Develop and distribute communication resources (e.g., social media graphics and sample posts) to project partners to spotlight major project milestones. Submit a copy to the CAM and CARB project liaison.
- Coordinate with The Coalition for Clean Air (CCA) to distribute materials regarding project to their email newsletters, social media accounts, and in-person community events throughout the project period.
- Develop list of targeted industry associations for outreach support. Submit a copy of the list to the CAM and CARB project liaison.

- Coordinate with targeted industry associations to distribute project materials through their channels.
- Leverage project partners, CBOs, and associations for outreach and education throughout the project period and during major project milestones.

**Products:**

- Copy of distributed communication resources
- List of targeted industry associations

**Task 8.4 Publish Websites and Other Collateral (Joint CEC and CARB Sub-task)**

The goal of this task is to develop a website with a multimedia resource center to make it easy for stakeholders to learn about key project components (e.g., partners, technologies, milestones) and the expected environmental and economic benefits from charging infrastructure development and deployment. In addition, the website will feature project photos and videos, media releases and thought leadership articles, recordings of educational webinars, and more. Additionally, the project team will develop shareable resources that highlight key milestones and infrastructure learnings from the ongoing project. These resources can be used to support project partners in their individual communications to media, with industry peers and partners, and at industry conferences.

**The Recipient shall:**

- Design website.
- Provide a copy of official website designs to the CAM and CARB project liaison.
- Build and launch official project website.
- Update websites with press releases, photos, videos, and other materials related to the deployment of charging infrastructure, DER, electric trucks throughout the project period and during major project milestones.
- Update official project website during project period with press releases, event photos, videos, fleet manager/ driver/ technician testimonials, and final project conclusions throughout the project period and during major project milestones.
- Develop initial project talking points, fact sheets, and PowerPoint slides.
- Produce videos about experience with project electric trucks (e.g., multi-year experience, key lessons learned, drivers' perspectives on the benefits).

**Products:**

- Copy of official website designs



## **Task 8.5 Participate in Industry Events and Webinars (Joint CEC and CARB Sub-task)**

The goal of this task is to present project highlights, including infrastructure technologies used and the project's challenges/solutions, at industry conferences and webinars throughout the length of the project. These presentations will include input from project partners, such as fleets and technology providers.

### **The Recipient shall:**

- Create a schedule for targeted industry events, conferences, and webinars.
- Present lessons learned at industry events, conferences, and via educational webinars.
- Host educational webinar to share project results and forward electrification plans for the project fleets in their freight movement operations.
- Submit copy of materials used during presentations at industry events, conferences, and webinars to the CAM and CARB project liaison.
- Present project highlights at industry events throughout the year following the project.
- Provide a copy of final conclusions to the CAM and CARB project liaison.

### **Products:**

- Copies of materials used during presentations at industry events, conferences, and webinars
- Copies of project highlights

## **TASK 9 ZERO-EMISSION VEHICLE WORKFORCE PLAN (CEC Task)**

### **Task 9.1 ZEV Workforce Plan (CEC Sub-task)**

The goal of this task is to develop a ZEV Workforce Plan.

### **The Recipient shall:**

- Develop ZEV Workforce Plan data collection outline.
- Provide the approach and/or methodology to analyze ZEV Workforce Plan survey data against established performance indicators and metrics.
- Document the proposed ZEV Workforce Plan including, but not limited to:
  - Total number of full- and part-time employees.
  - Identification of employment class and/or job title.
  - Wage rates.
- Develop training performance metrics.
- Digitize survey responses.

- Develop key performance indicators and metrics for driver operations and truck maintenance.
- Identify and document all workforce elements required for electric vehicle charger planning, permitting, construction, installation, and maintenance.
- Submit Electric Vehicle Infrastructure Training Program (EVITP) Certification Numbers of each EVITP-certified electrician that installed electric vehicle charging infrastructure or equipment. EVITP Certification Numbers are not required to be submitted if AB 841 requirements do not apply to the project.
- Submit an AB 841 Certification that certifies the project has complied with all AB 841 (Ting, Chapter 372, Statutes of 2020) requirements specified in Exhibit C or describes why the AB 841 requirements do not apply to the project. The certification shall be signed by Recipient's authorized representative. Although AB 841 becomes effective January 1, 2022, as a policy matter the CEC is applying the EVITP certification requirements to project work funded under this Agreement, regardless of whether it might be performed prior to January 1, 2022, unless an exception applies.
- Convene a meeting of fleets, charger infrastructure providers, original equipment manufacturers, trainers, and other project partners to discuss and document:
  - Training needs.
  - Gaps in the training.
  - Training delivery options and locations.
  - Workforce training performance metrics.
  - Workforce training data collection.
  - Identify local training and workforce partners.
- Develop an implementation schedule for training.
- Develop ZEV Workforce Fact Sheet.
- Prepare and submit the Draft ZEV Workforce Plan to the CAM. The CAM shall provide comments to the Plan and the Recipient shall make the requisite revisions.
- Prepare and submit the Final ZEV Workforce Plan for CAM approval.

**Products:**

- EVITP Certification Numbers of each EVITP-certified electrician
- AB 841 Certification
- Draft ZEV Workforce Plan
- Final ZEV Workforce Plan

## **9.2 Workforce Training (CEC Sub-task)**

The goals of this task are to develop a workforce training curriculum, prepare training materials, conduct training, and document performance and results. Training shall focus on safety, maintenance, operation, and service of fleet vehicles and electric vehicle charging infrastructure.

### **The Recipient shall:**

- Develop workforce training curriculum.
- Develop training materials for each fleet's training courses.
- Provide copy of the training materials to the CAM.
- Conduct training classes.
- Develop trainee survey instrument(s).
- Collect and document feedback from trainees that complete each training.
- Establish performance metrics and collect data for training including, but not limited to course attendance, training agenda, total time trained, training topics covered per training session, and retention of training course material by trainees.
- Collect baseline data for each training.
- Conduct Critical Project Review (CPR) at the mid-point of training with all key workforce partners including the CAM.

### **Products:**

- Copies of Training Materials

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

## **Task 9.3 Workforce Project Data Collection and Analysis (CEC Sub-task)**

The goals of this task are to collect workforce project data, to analyze that data for economic and training effects, and to include the data and analysis in the Final Report.

### **The Recipient shall:**

- Develop a data collection plan.
- Identify key workforce and training issues encountered and resolution of the issues.
- Collect workforce and training data for the life of the project.
- Provide data on specific jobs and economic impact as a direct result of the project. Additionally, provide estimates of future jobs and occupations, list of required skills, and sources of workers.

- Describe the job market(s) that support the trucks and charging infrastructure for Class 8 ZEV trucks and compare the market and status from the time of the original project proposal to the time of the project's completion.
- Assess baseline data collected and trainee feedback, workforce and training gaps, evaluate lessons learned and ways to improve and coordinate existing and future training efforts by the project partners, and include in the Final Report.
- Collect data, information, and analysis described above and include in the Final Report.

**Products:**

- Workforce Data Collection Plan
- Data collection information and analysis will be included in the Final Report

**TASK 10 DATA COLLECTION AND ANALYSIS (CEC Task)**

The goal of this task is to collect operational and enhanced data from the project. The project team will install and maintain all necessary equipment to collect data on all trucks and recharging events, and to analyze that data for economic and environmental impacts, inform stakeholders on requirements, grid impacts, cost/benefit, environmental impacts, and ratepayer benefits for the installation of heavy-duty EVSE, and to include the data and analysis in the Final Report.

**The Recipient shall:**

- Develop data collection test plan.
- Install data collection equipment and ensure that it works with the vehicles and infrastructure being demonstrated for this project.
- Troubleshoot any issues identified.
- Identify the source of the alternative fuel.
- Duty cycle of the current fleet and the expected duty cycle of future vehicle acquisitions.
- Collect a minimum of 12 months of throughput from the deployed infrastructure for the 100 BETs, usage, and operations data from the project monthly using the data collection requirements detailed in CARB's *Data Collection Requirements* and including, but not limited to:
  - Peak power delivered (kW).
  - Duration of active charging, hourly.
  - Duration of charging session, hourly (e.g., vehicle parked but not actively charging).
  - Energy delivered (kW).

- Types of vehicles using the charging equipment.
- Applicable price for charging, including but not limited to electric utility tariff, or EVSP service contract.
- Maximum capacity of the new charging system.
- Normal operating hours, up-time, downtime, and explanations of variations.
- Gallons of gasoline and/or diesel fuel displaced (with associated mileage information).
- Estimated reductions of the metrics below using the methodology and calculations shown in CARB's *Methodology for Determining Emission Reductions and Cost-Effectiveness*.
  - Greenhouse gas.
  - Oxides of nitrogen.
  - Particulate matter (less than 10 microns in diameter).
  - Carbon intensity values for life-cycle greenhouse gas emissions.
  - Reactive organic gas.
- Identify any current and planned use of renewable energy at the facility.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code Regulations.
- Analyze data collection from the BETs with focuses listed below:
  - EV Fleet operational dynamics and ability to charge.
  - EV fleet availability and downtime.
  - EV maintenance and repair summary and costs.
  - Fleet duty cycle characteristics.
  - Powertrain duty cycle (including fuel efficiency, battery degradation and range).
  - Vehicle energy consumption and charging pattern.
  - Fleet operator, maintenance staff and driver experience.
    - User and Operational Feedback
  - EV fleet's ability to meet operational needs.
- Analyze data collection from charging infrastructure and DER with focuses listed below:
  - Capital and installation cost data.
  - Demonstration period facility, EVSE and load data.
  - Maintenance and operations data.
  - Charging and electricity utilization analysis.
    - User and Operational Feedback

- Provide data on potential job creation (both temporary and permanent), economic development, and increased state revenue as a result of expected future expansion.
- Specific jobs (both temporary and permanent) and economic development resulting from this project.
- Compare and contrast any project performance and expectations provided in the proposal to CEC and CARB with actual project performance and accomplishments.
- Collect data, information, and analysis described above and include in the Final Report.
- Data collection and analysis for infrastructure will include:
  - Installation and capital costs for hardware, installation, electrical upgrades.
  - Aggregated/average price of electricity.
  - Performance metrics/analysis of charger reliability.
- Conduct project stakeholder surveys, interviews and data reviews with fleet operators, OEMs, and utilities to identify challenges, successes, lessons learned and best practices during beginning, mid-point, and end of the project.

**Products:**

- Data Collection Test Plan
  - Monthly data collection
  - Data collection information and analysis will be included in the Final Report
- [CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]**

**TASK 11 ENHANCED DATA COLLECTION AND ANALYSIS (CEC Task)**

**Task 11.1 Enhanced Data Collection (CEC Sub-task)**

The goal of this task is to utilize data collected in Task 10 and analyze the data to plan for future zero-emission vehicle fleet efforts in the South Coast air basin.

**The Recipient shall:**

- Submit Enhanced Data Collection Plan to the CAM.
- Analyze data collection from Task 10 with focuses listed below:
  - BET Fleet operational dynamics and ability to charge.
  - BET fleet availability and downtime.
  - BET maintenance and repair summary and costs.
  - Fleet duty cycle characteristics.

- Powertrain duty cycle (including fuel efficiency, battery degradation and range).
- Vehicle energy consumption and charging pattern.
- Fleet operator, maintenance staff and driver experience.
- BET fleet's ability to meet operational needs.
- Analyze data collection from charging infrastructure with focuses listed below:
  - Capital and installation cost data.
  - Demonstration period facility, EVSE, and load data.
  - Maintenance and operations data.
  - Charging and electricity utilization analysis.
    - User and Operational Feedback
- Conduct project stakeholder surveys, interviews and data reviews with fleet operators, OEMs, and utilities to identify challenges, successes, lessons learned and best practices during beginning, mid-point, and end of the project and submit the results to the CAM.
- Produce a Vehicle and Infrastructure Analysis Report and provide to the CAM.

**Products:**

- Enhanced Data Collection Plan
- Copies of Project Stakeholder interview and surveys
- Vehicle and Infrastructure Analysis Report

**Task 11.2 Fleet Case Studies (CEC Sub-task)**

The goal of this task is to develop case studies of NFI and Schneider's project activities and data collected. The case studies would include aggregated and average electricity prices, installation and capital costs, charger reliability, comparison analysis of baseline fuels, and additional data collected during the project.

**The Recipient shall:**

- Develop draft version of NFI case study.
- Develop draft version of Schneider case study.
- Develop final version of NFI case study.
- Develop final version of Schneider case study.

**Products:**

- Draft NFI Case Study
- Draft Schneider Case Study
- Final NFI Case Study

- Final Schneider Case Study

### **TASK 12 ENERGY-EFFICIENT ROUTING FOR ELECTRIC TRUCKS (CEC Task)**

The goal of this task is to analyze project data to evaluate energy savings potential of energy-efficient routing (eco-routing) for electric trucks. The project team will leverage decade-long experience on prior UCR eco-routing work on baseline trucks and develop similar algorithms using real-world operation data collected under Task 10. The analysis results will inform stakeholders on energy savings potential of this electric truck routing technology based on real-world operation data.

#### **The Recipient shall:**

- Obtain real-world activity and energy consumption data collected for first the 6 months of operation for each BET fleet under Task 10 for the first 10 electric trucks.
- Develop energy consumption models and associate eco-routing algorithms for the first 10 electric trucks of each fleet.
- Calculate energy saved with the use of energy-efficient route for each trip and compare it with the actual route taken.
- Participate in stakeholder meetings to present findings.
- Submit stakeholder feedback to the CAM.
- Submit Report on "Energy-Efficient Routing for Electric Trucks," including algorithm development, route analysis and knowledge findings created to the CAM.

#### **Products:**

- Report on "Energy-Efficient Routing for Electric Trucks"
- Report on stakeholder feedback

### **TASK 13 PROJECT FACT SHEET (CEC Task)**

The goal of this task is to develop an initial and final project fact sheet that describes the CEC- and CARB-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 six high-quality digital photographs (minimum resolution of 1300x500 pixels in landscape ratio) of pre- and post-technology installation at the project sites or related project photographs.

**Products:**

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

STATE OF CALIFORNIA

STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

**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-21-014 with South Coast Air Quality Management District for a \$10,964,955 grant to purchase and install 50 direct current fast chargers (DCFC), solar power generation equipment, and distributed energy resources equipment, and to conduct workforce training and development and community outreach. The proposed charging, solar generation, and distributed energy resources equipment will be capable of charging and supporting the pilot of 100 on-road, Class 8 battery electric trucks that are being funded by the California Air Resources Board (CARB); and

**FURTHER BE IT RESOLVED**, that the Executive Director or his/her 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 July 15, 2021.

AYE:

NAY:

ABSENT:

ABSTAIN:

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Liza Lopez  
Secretariat