



GRANT REQUEST FORM (GRF)

A) New Agreement # ARV-21-013 (to be completed by CGL office)

B) Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Kate Reid	27	916-237-2536

C) Recipient's Legal Name	Federal ID #
San Francisco Department of the Environment	47-5520400

D) Title of Project
San Francisco's MD/HD EV Blueprint – Ensuring None Are Left Behind

E) Term and Amount

Start Date	End Date	Amount
07 / 15 / 2021	03 / 31 / 2024	\$ 199,885

F) Business Meeting Information

ARFVTP agreements \$75K and under delegated to Executive Director
 Proposed Business Meeting Date 07 / 15 / 2021 Consent Discussion
 Business Meeting Presenter Kate Reid Time Needed: 5 minutes
 Please select one list serve. Altfuels (AB118- ARFVTP)

Agenda Item Subject and Description:

SAN FRANCISCO DEPARTMENT OF THE ENVIRONMENT Proposed resolution approving Agreement ARV-21-013 with San Francisco Department of the Environment for a \$199,885 grant to develop a planning blueprint to create a charging infrastructure network to serve all MD/HD ZEV fleets, particularly those with fewer than 50 vehicles such as the City of San Francisco's own fleet, in addition to other local commercial fleets, and adopting staff's determination that this action is exempt from CEQA. (Clean Transportation Program funding). Contact: Kate Reid (Staff Presentation: 5 minutes).

G) California Environmental Quality Act (CEQA) Compliance

- 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 .
- 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 Reg.s, tit. 14, section 15306 ("Information Collection")
 - Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why Agreement is exempt under the above section: This project consists of developing a planning document for possible, future deployment of zero emission vehicles and related infrastructure equipment. The project will not cause direct physical changes to the environment, and there will be no physical construction. This project involves data



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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 Ltd	\$ 60,000.00
	\$ 0.00
	\$ 0.00

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

Legal Company Name:
Central Shops
San Francisco Clean Cities Coalition (SFCCC)
San Francisco Public Utilities Commission (SFPUC)

J) Budget Information

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
ARFVTP	FY 19/20	601.118L	\$199,885
Funding Source			\$
Funding Source			\$
Funding Source			\$
Funding Source			\$

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

Explanation for "Other" selection

Reimbursement Contract #:

Federal Agreement #:



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K) Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Joseph Salem
 Address: 1455 Market, 12th Floor
 City, State, Zip: San Francisco, CA 94103
 Phone: (415) 355-3721
 E-Mail: joseph.salem@sfgov.org

2. Recipient's Project Manager

Name: Lowell Chu
 Address: 1455 Market, 12th Floor
 City, State, Zip: San Francisco, CA 94103
 Phone: 415-355-3700
 E-Mail: Lowell.chu@sfgov.org

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 | <input checked="" type="checkbox"/> | Attached |
| 2. Exhibit B, Budget Detail | <input checked="" type="checkbox"/> | Attached |
| 3. CEC 105, Questionnaire for Identifying Conflicts | <input checked="" type="checkbox"/> | Attached |
| 4. Recipient Resolution | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 5. CEQA Documentation | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

**Exhibit A
SCOPE OF WORK**

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Inventory and Analysis
3	X	Outreach and Stakeholder Engagement
4		Create the Charging Infrastructure Map
5		Innovation to Spur MD/HD ZEV Charging Investments
6		Project Fact Sheet
7		Blueprint

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Lowell Chu – SFE Nicole Appenzeller - SFE		
2	Sandy Carter - SFPUC Lowell Chu – SFE Nicole Appenzeller - SFE	Arup North America Ltd (Arup), Cole Roberts	Central Shops SFPUC Inter-departmental/ Agency Stakeholders
3	Suzanne Loosen – SFE Nicole Appenzeller - SFE		Inter-departmental/ Agency Stakeholders Industry and financial stakeholders Local Businesses/The SF Market SFE Environmental Justice Team SFCCC Central Shops

4	Sandy Carter – SFPUC Lowell Chu – SFE	Arup, Cole Roberts	SFMTA, SFPUC SFCCC and Central Shops
5	Lowell Chu – SFE Nicole Appenzeller - SFE	Arup, Cole Roberts	SFMTA, SFPUC, SF Planning Industry and financial Stakeholders Local Businesses / The SF Market Central Shops
6	Lowell Chu – SFE		
7	Sandy Carter – SFPUC Lowell Chu – SFE Nicole Appenzeller - SFE	Arup, Cole Roberts	Arup, Central Shops, City College, MOEWD, SFCCC, SFMTA, SFPUC & External/Internal Stakeholders

GLOSSARY

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

Term/ Acronym	Definition
ACT	Advanced Clean Trucks Regulation
CAM	Commission Agreement Manager
CARB	California Air Resources Board
CBO	Community Based Organization
CCA	Community Choice Aggregator
CEQA	California Environmental Quality Act
City	City & County of San Francisco
CleanPowerSF	CleanPowerSF is San Francisco’s community choice aggregator
Clean Transportation Program	Formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program
CPR	Critical Project Review

CPUC	California Public Utilities Commission
CVRP	Clean Vehicle Rebate
DAC	Disadvantaged Community
DPW	Department of Public Works
E-Bike	Battery-Electric Bicycle
EV	Electric Vehicle
FCEV	Fuel Cell Electric Vehicle
FTD	Fuels and Transportation Division
ICCT	International Council on Clean Transportation
ICE	Internal Combustion Engine
LD	Light Duty – Vehicles include cars, vans, and trucks (classes 1 to 2a).
Mapping Tool	Blueprint Mapping Tool developed in Phase 1 of the EV-Ready Community Blueprint
MD/HD	Medium- and Heavy-Duty (classes 2b to 8)
PG&E	Pacific Gas and Electric
Recipient	San Francisco Department of the Environment
SFCTA	San Francisco County Transportation Authority
SFDBI	San Francisco Department of Building Inspections
SFMTA	San Francisco Municipal Transportation Authority
SFO	San Francisco International Airport
SFPUC	San Francisco Public Utilities Commission
SFE	SF Environment - Also known as the San Francisco Department of the Environment
TNC	Transportation Network Companies (e.g. Lyft. Uber)
Working Group	A committee or group appointed to study and report on a particular question and make recommendations based on its findings.
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 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.

The CEC issued GFO-20-601 entitled "Blueprints for Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure" under the CEC's Clean Transportation Program. To be eligible for funding under GFO-20-601, projects must also be consistent with the CEC's current Clean Transportation Program Investment Plan, updated annually. In response to GFO-20-601, the Recipient submitted Proposal #36, which was proposed for funding in the CEC's Notice of Proposed Awards on April 8, 2021. GFO-20-601 is 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. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the terms of the Recipient's Application, the terms of this Agreement shall control.

Problem Statement:

In 2018, the transportation sector was responsible for nearly 50% of the emissions in the City, especially impacting disadvantaged communities (DAC) near major traffic corridors and freeways. As both a gateway and destination city for the region's goods movement, nearly 40,000 MD/HD vehicles¹ operate in San Francisco every workday. Moreover, as of January 2020, there are nearly 10,000 MD/HD vehicles registered in the City.² The sheer volume of MD/HD traffic makes San Francisco one of the most polluted areas in the country when it comes to diesel particulate matter 2.5 (PM_{2.5}).³

To meet the City's commitment of net-zero emissions by 2050, and to significantly improve air quality for DAC residents, San Francisco must electrify the transportation sector, particularly MD/HD vehicles. To that end, the City adopted the EV Roadmap, the planning document with six strategies to totally electrify the transportation sector by 2040. One of the strategies specifically focuses on accelerating MD/HD ZEV adoption, with an interim goal of 10,000 MD/HDs operating in the City by 2030. More broadly, the Mayor's Office and the San Francisco Department of the Environment (SFE) published "Focus 2030: Pathway to Zero Emissions," a technical report demonstrating the pathway for San Francisco to achieve these deep emissions

¹ Caltrans Annual Average Daily Truck Traffic

² California Department of Motor Vehicles, Vehicle Registrations Data as of January, 2020

³ The American Lung Association. (2019). *The State of the Air 2019*.

reductions. Specifically, it indicated that fuel-switching 25% of private cars, trucks and other private-mobility modes could reduce projected 2030 GHG-emissions reduction by over 450,000 MTCO₂e. Clearly, 2030 is a crucial milestone for the City's climate initiative. To that end, the City's infrastructure must be convenient, affordable and equitable – serving fleets of all types and sizes, ensuring none are left behind.

The problem is that the City doesn't have sufficient charging infrastructure planned to support 10,000 MD/HD ZEVs by 2030. In order to advance and accelerate MD/HD ZEV adoption, chargers must be convenient and ubiquitous. However, developing such a network is challenging and complex, particularly for the municipal fleet, with over 3,200 gasoline and diesel-powered MD/HD vehicles. It's also challenging for owners and operators of more than 10,000 private-sector MD/HD vehicles that are domiciled in the City, most of which do not have resources to participate in incentive and other programs that would help them transition to EVs.

The City's Central Shop is charged with management and maintenance of the vehicles, but vehicle requisitions originate from individual departments. As a result, each department must consider the costs and benefits of vehicle electrification, including identifying locations and capacities for vehicle charging. This disparate approach is an institutional barrier to MD/HD ZEV adoption. The solution is to have one City department act as a single point-of-contact and to plan and deploy a unified, consistent approach to identify the actions, funding, and timeline to build charging infrastructure for the municipal MD/HD ZEVs. Thus, to ensure no one is left behind, the City must convene relevant stakeholders to jointly create a Blueprint to solve these problems.

Goals of the Agreement:

San Francisco will create a Blueprint that accelerates and advances MD/HD ZEV adoption of all fleets, large and small. To that end, the goals of the agreement are to 1) collect data to take inventory and analyze the inter-regional and local MD/HD fleets; 2) engage diverse stakeholders to be a part of the process to develop the Blueprint and the Charging Infrastructure Map; 3) develop the Charging Infrastructure Map identifying optimal locations; 4) identify actions, policies, and innovations to make the chargers on the Charging Infrastructure Map a reality, and 5) develop a Blueprint to create an affordable, convenient charging network for 10,000 MD/HD ZEVs of *all* fleets by 2030, ensuring none are left behind.

Objectives of the Agreement:

The objectives of this Agreement are to:

- Engage internal and external stakeholders to inform the development of the Blueprint;
- Deliver an executable Blueprint, with milestones, that provides the 2030 charging needs of inter-regional trucks and buses traveling to and through the City, the municipal MD/HD ZEV fleet, and local, small- and medium-sized MD/HD ZEV fleets, including a Charging Infrastructure Site Map;
- Investigate innovative approaches, actions and milestones to spurring infrastructure investments in a large jurisdiction; and
- Outline a pilot program in which several local fleets can participate to help the city further understand their needs.

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.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - Critical Project Review (Task 1.2)
 - Match fund documentation (Task 1.6) No reimbursable work may be done until this documentation is in place.
 - Permit documentation (Task 1.7)
 - Subcontracts needed to carry out project (Task 1.8)
 - The CAM's expectations for accomplishing tasks described in the Scope of Work
 - An updated Schedule of Products and Due Dates
 - Monthly Progress Reports (Task 1.4)
 - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
 - Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits

CAM 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, the Commission Grants Office Officer, and the CAM. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the CAM.
The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The CAM will determine the appropriate meeting participants.
The administrative portion of the meeting shall be a discussion with the CAM and the Grants Officer 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 Progress Reports

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

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

The Recipient shall:

- Prepare a Monthly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the CAM within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.
- In the first Monthly Progress Report and first invoice, document and verify match

expenditures and provide a synopsis of project progress, if match funds have been expended or if work funded with match share has occurred after the notice of proposed award but before execution of the grant agreement. If no match funds have been expended or if no work funded with match share has occurred before execution, then state this in the report. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.

Product:

- Monthly Progress Reports

Task 1.5 Final Report

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

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

The Final Report shall be a public document. If the Recipient has obtained confidential status from the 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, if requested by the CAM.
- Prepare a Final Report following the latest version of the Final Report guidelines which will be provided by the CAM. The CAM shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
- Submit one bound copy of the Final Report with the final invoice.

Products:

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

Task 1.6 Identify and Obtain Matching Funds

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

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the 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 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 1.7 Identify and Obtain Required Permits

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

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the 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 1.8 Obtain and Execute Subcontracts

The goal of this task is to ensure quality products and to procure subcontractors required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement policies and procedures. It will also provide 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 for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

Products:

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

TECHNICAL TASKS

TASK 2 INVENTORY AND ANALYSIS

The goal of this task is to collect and analyze data to determine the Energy Demand (MWh), number of depot chargers and number of ultra-fast / high-powered chargers and support decision-making and development of the Blueprint for MD/HD ZEVs by establishing a MD/HD baseline and segmentation.

The Recipient shall:

- Develop a Data Collection Plan. Provide a copy to the CAM.
- Collect data from sources required for analysis including, but not limited to the following:
 - California Department of Motor Vehicles records of vehicles registered in San Francisco, specifying make and model, model year, ZIP code, fuel and vehicle types
 - Caltrans Annual Average Daily Truck Traffic
 - Metropolitan Transportation Commission Traffic Data Collection in the San Francisco Bay Area
 - Business licenses from the Treasurer's Office to cross-reference with the DMV data to identify the number, composition, and domicile locations of MD/HD fleets in San Francisco

- City Administrator's Office for the City's MD/HD fleet: vehicle composition, replacement schedules, and domicile locations
- SFPUC to identify areas of the electrical grid with excess service capacities
- Fleets' MD/HD vehicle travel telematics information, as available
- Other datasets as advised by Arup.
- Establish baselines and segments for the inter-regional fleets, the municipal fleet and fleets domiciled in the City, including but not limited to:
 - Vehicle makes, models, fuel-types, and age
 - Market segments (i.e. restaurant-service delivery, towing, construction, last-mile delivery, and etc.)
 - Vehicle domicile locations, (i.e. on the street, in lots / garages, etc.)
 - Typical annual vehicle miles traveled (by market segments), daily routes and emissions profiles
 - Typical operating costs, including fuel, insurance, and maintenance
 - Current and future challenges to MD/HD vehicle electrification
- Identify MD/HD ZEVs for each segment and interventions that could reduce, or right-size, the number of vehicles in the municipal pool.
- Determine the Energy Demand (MWh), number of depot chargers and number of ultra-fast chargers.
- Produce a Data Collection Analysis Report, including data collected from the Data Collection Plan, and provide a copy to the CAM.

Products:

- Data Collection Plan
- Data Collection Analysis Report

TASK 3 OUTREACH AND STAKEHOLDER ENGAGEMENT

The goal of this task is to engage the community, stakeholders and City departments in the refining and development of the Blueprint to ensure that the resulting document and its contents fulfill their needs, address their concerns and interests, and are implementable within the allocated timeframe.

The Recipient shall:

- Create an Engagement Plan to involve key City departments, agencies, small-and medium-sized fleet owners and operators, communities, residents, and other relevant stakeholders. Provide a copy to the CAM.
- Engage and survey key City departments with MD/HD and construction/off-road vehicles to learn vehicle uses, and opportunities for vehicle pooling and right-sizing.

- Establish a MD/HD ZEV Working Group to guide the development of the Blueprint. The Working Group will:
 - Consist of public sector stakeholders and key City departments such as regional planning agencies, PG&E, CCA, City planning and permitting staff, members of the community and CBOs, industry stakeholders, and financial institutions.
 - Hold at least six (6) meetings.
 - Continue to meet periodically to update the Blueprint and sustain stakeholder engagement to consider changes in the political, social, technical, and economic landscapes.
- Provide the list of Working Group members and copies of webinar and in-person presentations, the Working Group Charter, and summaries of each Working Group meeting, including agendas, list of attendees, and meeting materials to the CAM.
- Conduct a Small Fleets Needs Assessment Survey of small- and medium-sized commercial fleet owners and operators with MD/HD vehicles, through the San Francisco Clean Cities Coalition, to learn business models, vehicle operations, miles-traveled, stop frequencies, types of goods, etc. Provide a copy of the survey to the CAM.
- Evaluate and classify the challenges for municipal, small- and medium-sized fleets to electrify their MD/HD vehicles. Develop a Summary of Small Fleets Needs Assessment Findings. Provide a copy to the CAM.
- Conduct a DAC Needs Assessment Survey to understand community concerns over land-use, traffic-safety, congestion, and other impacts resulting from charger-siting and charging. Provide a copy of the survey to the CAM.
- Evaluate the survey findings and develop a Summary of DAC Needs Assessment Findings. Provide a copy to the CAM.
- Identify opportunities for mode shift to alleviate MD/HD ZEV charging demand on the electrical grid.
- Create a Blueprint Playbook to:
 - Share San Francisco's experience in developing the Blueprint.
 - Highlight the innovative approaches to spur investments in charging infrastructure for MD/HD ZEVs.
 - Highlight the stakeholder and community engagement activities and results.
 - Link the Blueprint with the Charging Infrastructure Map and detail how other communities and jurisdiction could replicate the Mapping Tool.
- Provide a copy of the Blueprint Playbook to the CAM.

Products:

- Engagement Plan
- Small Fleets Needs Assessment Survey
- Summary of Small Fleets Needs Assessment Findings
- DAC Needs Assessment Survey
- Summary of DAC Needs Assessment Findings
- Webinar and in-person presentations
- City-wide MD/HD ZEV Working Group Charter
- List of MD/HD ZEV Working Group Members
- Summaries of each Working Group meeting including agendas, list of attendees, and presentation materials.
- MD/HD ZEV Blueprint Playbook

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

TASK 4 CREATE THE CHARGING INFRASTRUCTURE MAP

The goal of this task is to identify the locations, existing electrical capacities and upgrades required to support 10,000 MD/HD ZEV by 2030.

The Recipient shall:

- Apply findings and results from Tasks 2 and 3 to identify locations for depot, fast and ultra-fast / high-powered chargers to provide on-route charging for large fleets and entities traveling through San Francisco, and depot or shared charging to serve the municipal, small- and medium-sized commercial fleets.
- Identify locations along major commercial corridors and freeways for ultra-fast / high-powered on-route charging for inter-regional MD/HD vehicles, such as short unit short- and long-haul, combination unit short- and long-haul trucks, and non-municipal buses such as tour and tech-buses.
- Use Blueprint Mapping Tool to generate a Charging Infrastructure Map for MD/HD ZEVs.
- Provide the CAM with a link to the current Blueprint Mapping Tool.
- Seek and integrate feedback from the working group to update the Charging Infrastructure Map, particularly noting impacts on DACs.
- Identify areas of the grid requiring future upgrades.
- Draft a Charging Infrastructure Map and Narrative. Provide a copy to the CAM and include the final version in an appendix to the Blueprint.

Products:

- Link to current Blueprint Mapping Tool
- Draft Charging Infrastructure Map and Narrative

TASK 5 INNOVATION TO SPUR MD/HD ZEV CHARGING INVESTMENTS

The goal of this task is to understand the various approaches to encourage MD/HD ZEV charging investments and develop a plan to deploy a charging pilot program to support infrastructure investments in small, local fleets.

The Recipient shall:

- Investigate various approaches to spur MD/HD charging investments by reducing costs and risks, including but not limited to:
 - Smart(er) land use and policies for siting charging assets.
 - Co-sharing of charging assets with interoperable charging connectors and interfaces compatible with municipal buses, fleets and private-sector MD/HD ZEVs.
 - Public-private partnerships to encourage charging investments for MD/HD ZEVs.
 - City-backed program that pools funds to finance charging infrastructure with an annual return on investment; provides financing to small- and medium-sized commercial fleets for depot / shared charging infrastructure.
 - Impact on cost reduction and risk mitigation.
 - Impact on grid stability and resiliency.
 - Impacts on air-quality and GHG-emissions reduction.
 - Geographic distribution and adjacency to major thoroughfares and corridors and DACs.
- Evaluate the challenges for small- and medium-sized fleets to electrify (as identified in Task 3), develop an Implementation Plan, and identify funding for a local pilot program to provide resources to overcome the challenges for a cohort of local businesses to install onsite dedicated depot charging, or shared charging for a cluster of domiciled fleets. Provide a copy to the CAM.
- Draft an Interim Report summarizing various approaches, impacts, resultants and recommendations for next steps.
- Compile a listing of funding sources for the MD ZEV charging pilot program that will also be included in final Blueprint.

Products:

- Implementation Plan for MD ZEV Charging Pilot Program
- Interim Report
- List of potential funding sources

TASK 6 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 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 7 BLUEPRINT

The goal of this task is to develop a comprehensive blueprint that supports charging for all MD/HD ZEVs, with a focus on municipal and small- and medium-sized commercial fleets.

The Recipient shall:

- Provide an outline of the Blueprint and submit to the CAM.
- Develop a Blueprint (draft and final) which includes the following:
 - Summaries of Tasks 2, 3, 4 (Charging Infrastructure Map) and 5.
 - Actions, timelines, and policies to realize the Charging Infrastructure Map, including discussion on how Task 5 could be integrated.
 - Actions to expand existing automotive training programs to include MD/HD ZEVs and graduate job placements with manufacturers, retailers and fleet-rentals and draft a summary.
 - Implementation plan for the Small Fleet Charging Pilot.
 - Actions for MD/HD ZEVs to support grid balance, stability, and reliability.
 - Actions for MD/HD ZEVs to support municipal resiliency efforts.

Products:

- Outline of Blueprint
- Draft Blueprint
- Final Blueprint

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: SAN FRANCISCO DEPARTMENT OF THE ENVIRONMENT

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-21-013 with San Francisco Department of the Environment for a \$199,885 grant to develop a planning blueprint to create a charging infrastructure network to serve all MD/HD ZEV fleets, particularly those with fewer than 50 vehicles such as the City of San Francisco's own fleet, in addition to other local commercial fleets; 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:

Liza Lopez
Secretariat