**Attachment 6**

**Exhibit A**

**SCOPE OF WORK EXAMPLE**

Once recommended for a proposed award, awardees will be required to complete the following worksheet. **This document is not required to be completed as part of the application**

**TECHNICAL TASK LIST**

| **Task #** | **Task Name**  |
| --- | --- |
| 1 | Administration |
| 2 | Charging Infrastructure Installation |
| 3 | Purchase Electric School Bus |
| 4 | Scrap Replaced School Bus |
| 5 | Data Collection and Analysis |

**KEY NAME LIST**

*<Insert the Task numbers and the Key names for each Task in your Project. Include Key names only if the value of the project would significantly change without those personnel, subcontractors, or partners. Add additional lines as needed. Alternatively, you may delete this table if there are no key names.>*

| **Task #** | **Key Personnel** | **Key Subcontractor(s)** | **Key Partner(s)** |
| --- | --- | --- | --- |
| 1 | <Name> | <Name> | <Name> |
| 2 | <Name> | <Name> | <Name> |
| 3 | <Name> | <Name> | <Name> |
| 4 | <Name> | <Name> | <Name> |
| 5 | <Name> | <Name> | <Name> |

**GLOSSARY**

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

| **Term/ Acronym** | **Definition** |
| --- | --- |
| CAM | Commission Agreement Manager |
| CAO | Commission Agreement Officer |
| CPR | Critical Project Review |
| FTD | Fuels and Transportation Division |
| Recipient |  |

**Problem Statement:**

School bus fleets are aging, and our communities have poor air quality. Replacing school buses with lower emissions school buses will address both of these.

**Goals of the Agreement:**

The goal of this Agreement is toimprove air quality and reduce school energy costs, while providing students with necessary school transportation.

**Objectives of the Agreement:**

The objectives of this Agreement are to purchase electric (or CNG) school buses, and install bus charging infrastructure (if necessary).

**TASK 1 ADMINISTRATION**

**Task 1.1 Attend Kick-off Meeting**

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement. The Commission Agreement Manager (CAM) shall designate the date and location of this meeting and provide an agenda to the Recipient prior to the meeting.

**The Recipient shall:**

* Attend a “Kick-Off” meeting with the CAM, the Commission Agreement Officer (CAO), and a representative of the Energy Commission Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM to this meeting.
* Discuss the following administrative and technical aspects of this Agreement:
* Agreement Terms and Conditions
* Critical Project Review (Task 1.2)
* 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 Permits

**Commission Agreement Manager Product:**

* Kick-Off Meeting Agenda

**Task 1.2 Critical Project Review (CPR) Meetings**

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

The 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 Commission Agreement Officer, the Fuels and Transportation Division (FTD) program lead, other Energy Commission staff and Management as well as other individuals selected by the CAM to provide support to the Energy Commission.

**The CAM shall:**

* Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
* Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
* Conduct and make a record of each CPR meeting. Prepare a schedule for providing the written determination described below.
* Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see section 8 of the Terms and Conditions). If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Lead Commissioner for Transportation for his or her concurrence.
* Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

**The Recipient shall:**

* Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM and any other designated reviewers at least 15 working days in advance of each CPR meeting.
* Present the required information at each CPR meeting and participate in a discussion about the Agreement.

**CAM Products:**

* Agenda and a list of expected participants
* Schedule for written determination
* Written determination

**Recipient Product:**

* CPR Report(s)

# Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

* Meet with Energy Commission staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

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

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

The administrative portion of the meeting shall be a discussion with the Commission Agreement Manager and the Grants Officer about the following Agreement closeout items:

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

**Products:**

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

Task 1.4 Quarterly Progress Reports

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

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

**The Recipient shall:**

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

**Product:**

* Quarterly Progress Reports

Task 1.5 Final Report

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

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

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

The Recipient shall:

* Prepare an Outline of the Final Report, if requested by the CAM.
* Prepare a Final Report following the latest version of the Final Report guidelines which will be provided by the CAM. The CAM shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
* The Final Report shall include:
	+ - The data from task 5
		- The total gross project costs
		- Estimated change in energy use
		- The time from award to buses in service
		- Fuel usage before and after the project
* 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 Required Permits**

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

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient shall budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

**The Recipient shall:**

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

Products:

* Letter documenting the permits or stating that no permits are required
* A copy of each approved permit (if applicable)
* Updated list of permits as they change during the term of the Agreement (if applicable)
* Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)
* A copy of each final approved permit (if applicable)

**Task 1.7 Obtain and Execute Subcontracts**

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

**The Recipient shall:**

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

**Products:**

* Letter describing the subcontracts needed, or stating that no subcontracts are required
* Draft subcontracts
* Final subcontracts
* **TECHNICAL TASKS**

**TASK 2 CHARGING INFRASTRUCTURE INSTALLATION (if necessary)**

The goal of this task is to ensure that charging infrastructure is in place so that electric school buses can be used when buses are received.

 **The Recipient shall:**

* Install the charging infrastructure necessary to support the electric bus funded by this agreement.

**Products:**

* Notification that charging infrastructure is installed and operational.
* Photographs of charging station(s) and serial number(s).

**TASK 3 PURCHASE ELECTRIC (or CNG) SCHOOL BUSES**

The goal of this task is to purchase electric (or CNG) school buses.

**The Recipient shall:**

* Order buses.
* Take delivery of buses.
* Confirm buses are functioning as expected.
* Put new buses in rotation as part of the bus fleet.
* Inform the CAM in writing that buses are in service, and submit copies of the proof of purchase, and bus registration documentation

**Products:**

* Notification that the buses are in service.
* Proof of Purchase for each new school bus
* Bus Registration documentation
* Photographs of the bus(es).

 **TASK 4 SCRAP REPLACED SCHOOL BUSES**

The goal of this task is to scrap the old school buses that were replaced in task 3 to ensure that they are not producing emissions.

**The Recipient shall:**

* Remove from service the old school buses for which the Recipient has received replacement buses and scrap each old bus within 12 months from delivery of its new replacement school bus.
* Have Dismantler Certification Form (Attachment 12) completed and signed by dismantler.

**Products:**

Completed and signed Dismantler Certification Form (Attachment 12)

**TASK 5 DATA COLLECTION AND ANALYSIS**

The goal of this task is to collect operational data from the project, to analyze that data for economic and environmental impacts, and to include the data and analysis in the Final Report. Formulas will be provided for calculations.

**The Recipient shall:**

* Develop data collection test plan.
* Troubleshoot any issues identified.
* Collect 12 months of throughput, usage, and operations data from the project including, but not limited to:
	+ Maximum capacity of the new charging infrastructure
	+ Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)
	+ Expected air emissions reduction, for example:
		- Non-methane hydrocarbons
		- Oxides of nitrogen
		- Non-methane hydrocarbons plus oxides of nitrogen
		- Particulate Matter
		- Formaldehyde
	+ Duty cycle of the current fleet and the expected duty cycle of future vehicle acquisitions
	+ Specific jobs and economic development resulting from this project
	+ Vehicle miles traveled by the new school buses
	+ Maintenance and fueling costs for new buses and infrastructure.
	+ Number of students served by new buses
	+ Electricity use by infrastructure.
* Identify any current and planned use of renewable energy at the facility.
* Identify the source of the alternative fuel.
* Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code Regulations.
* Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
* Provide a quantified estimate of the project’s carbon intensity values for life-cycle greenhouse gas emissions.
* Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.
* Collect data, information, and analysis described above and include in the Final Report.

**Products:**

* Data Collection Test Plan
* Data collection information and analysis will be included in the Final Report
* Provide the Final Report in the format provided by the Energy Commission.