

To: CALSTART Members
From: Jean-Baptiste Gallo, Sr. Project Engineer, CALSTART
Subject: Request for proposal for portable emissions testing of advanced commercial vehicles in California
Date: April 2, 2015



CALSTART is seeking a highly experienced subcontractor to instrument, record data and provide a final report of all findings on tailpipe emissions from advanced commercial vehicles in California. The testing will be part of larger data collection and analysis projects funded by Southern California Gas Company, the California Energy Commission and the U.S. Department of Energy. The goal of the testing will be to compare the emissions of advanced commercial vehicles to baseline vehicles in real world or close to real world operation through rigorous portable emissions testing.

Description of Testing

We are seeking to measure second-by-second mass emissions of carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), particulate matter (PM), and total hydrocarbons (THC). In addition, fuel consumption (calculated or measured), GPS coordinates (latitude, longitude, vehicle speed) and exhaust temperature will be recorded in real time at a frequency of 1 Hz. Lastly, ambient temperature, pressure and humidity will be recorded at regular interval during testing.

This proposal covers portable emissions testing for four different projects described in the following tables:

Project #1	
Vehicles to Test	Class 4 PHEV CNG-powered medium duty truck Class 4 CNG-powered truck (baseline)
Testing Location	Milpitas, CA
Testing Time Period	Summer 2015
Testing Description	Day 1 – PHEV Truck / Test Equipment Set Up Day 2 – PHEV Truck / Urban Test at Half Payload Day 3 – PHEV Truck / Freeway Test at Half Payload Day 3 – Baseline Truck / Test Equipment Set Up Day 4 – Baseline Truck / Urban & Freeway Tests at Half Payload

Project #2	
Vehicles to Test	Class 8 PHEV diesel-powered drayage truck Class 8 diesel-powered drayage truck (baseline)
Testing Location	Ports of Los Angeles / Long Beach area
Testing Time Period	End of 2015
Testing Description	Day 1 – PHEV Truck / Test Equipment Set Up Day 2 – PHEV Truck / Drayage Test with Set Payload #1 Day 3 – PHEV Truck / Drayage Test with Set Payload #2 Day 3 – Baseline Truck / Test Equipment Set Up Day 4 – Baseline Truck / Drayage Test with Set Payload

Project #3	
Vehicles to Test	Hybrid-electric wheel loader Diesel-powered wheel loader (baseline)
Testing Location	Altamont, CA or Southern California
Testing Time Period	2 nd half of 2016 / 1 st half of 2017
Testing Description	Day 1 – Hybrid-electric Wheel Loader / Test Equipment Set Up Day 2 – Hybrid-electric Wheel Loader / Wheel Loader Duty Cycle Test Day 2 – Baseline Wheel Loader / Test Equipment Set Up Day 3 – Baseline Wheel Loader / Wheel Loader Duty Cycle Test

Project #4	
Vehicles to Test	Class 8 PHEV CNG-powered drayage truck Class 8 CNG or diesel-powered drayage truck (baseline)
Testing Location	Ports of Los Angeles / Long Beach area
Testing Time Period	End of 2017 / Beginning of 2018
Testing Description	Day 1 – PHEV Truck / Test Equipment Set Up Day 2 – PHEV Truck / Drayage Test with Set Payload #1 Day 3 – PHEV Truck / Drayage Test with Set Payload #2 Day 3 – Baseline Truck / Test Equipment Set Up Day 4 – Baseline Truck / Drayage Test with Set Payload

Please note that the parameters of these projects are subject to change and will be confirmed in a test plan developed and provided by CALSTART prior to the issuance of a task order.

Deliverables

- Excel file(s) of all emissions, fuel consumption, GPS coordinates and exhaust temperature testing data.
- Test debriefing meeting with CALSTART staff.
- A simple test report that include the following elements:
 - Description of test equipment,
 - Description of test equipment installation,
 - Test methodology and narrative,
 - Emissions and fuel economy results for advanced vehicle and baseline.

Minimum Technical Requirements

The qualifying company must have experience instrumenting, testing, and compiling Portable Emissions Measurement System (PEMS) results from commercial on-road and off-road vehicles. The subcontractor should have significant knowledge and experience with test equipment installation, expecting little assistance from fleet maintenance personnel and CALSTART staff. However, work space will be arranged and provided for equipment installation and uninstallation.

Cost Proposal

It is anticipated that the selected contractor will be compensated on a time & material reimbursement basis, with an established task limit on payment.

The cost proposal should provide an estimated effort in terms of hours and costs per project by team members, as well as the hourly rate per project member. Cost proposals should be broken out for each project, and divided into tasks. In addition, any equipment and travel costs should be specified.

We will work collaboratively with the winning vendor to determine the final scope of work and therefore, an exact budget. Every bidder is strongly encouraged to contact CALSTART to facilitate a better understanding of the projects scopes and requirements.

Proposal Information

All proposals should be no more than 5 pages in length and should include following information:

1. Overview:
 - a. Company overview
 - b. Structure of the team and brief biographies.
 - c. At least 3 references of past clients within the last two years with similar work that may be contacted (name, company, phone number, and email).
 - d. Small Business & Disabled Veteran Business Enterprise (DVBE) status.
2. Detailed technical approach, work plan and timeline:
 - a. The tasks to be completed for each project.
 - b. The timeline for on-site test (e.g. installation, testing, uninstallation).
 - c. Project schedule.
3. Cost proposal, broken down by project. Should break out any equipment costs separately.

In addition, these items are required in an appendix but not subject to the 5 page limit:

1. Descriptions from past relevant work (include client, timeframe, work done, and final product).
2. Resumes of key personnel.
3. Copy of current business license.

Evaluation Criteria

Proposals will be judged on the following criteria:

1. Technical approach and timeline.
2. Proposed project costs.
3. Technical knowledge & experience of the firm and staff.
4. References & past performance.

Proposal Submission

Proposals are due on or before May 1, 2015. After proposals are received, finalists will be invited for a short phone interview on site or by video-conference. Applicants are encouraged to contact CALSTART with any questions about this RFP. The contact for the project is:

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