

**Texas Commission on Environmental Quality
New Technology Research & Development (NTRD) Program
Monthly Project Status Report**

Contract

Number: 582-11-13471-2019

Grantee: Boulder Electric Vehicle, Inc.

**Report for the
Monthly period:**

June 2011

Date

Submitted: July 5, 2011

Section I. Accomplishments

Provide a bulleted list of project accomplishments as well as a description of their importance to the project.

- Partnership Agreements 2.1.1 - Boulder EV notified each of the six field validation partners proposed in the grant application, that the Texas Commission on Environmental Quality (TCEQ) New Technologies Research and Development (NTRD) grant had been awarded and that Boulder EV was in negotiations with TCEQ to successfully complete the grant budget and contract negotiations in order to achieve an initial Notice To Proceed. Boulder EV received the legal language from the United States Postal Service for their standard bailment/test agreement for vehicles which they consider as long term potential implementation vehicles for their fleets. Boulder EV used in house legal expertise as well as consultants to alter the bailment agreement to fit the use of the different field validation partners. Significant effort was put forth so that the bailment agreements would fulfill the needs of the tasks outlined in the grant award. Each agreement was then proposed to each of the six field validation partners. FedEx Express and UPS have both expressed great enthusiasm for the project and have reviewed the bailment agreements and forwarded them to their legal department with a verbal commitment to get them signed well before the two month deadline for Task 1. The three Texas City field validation partners Dallas, Galveston and San Antonio have all expressed great enthusiasm for the project. Both Galveston and San Antonio have had their legal departments return mark ups. Dallas is in the process of reviewing the language in the bailment agreements and has verbally said they could complete the documents in the month of July. Only the United States Postal Service has been less than overwhelmingly enthusiastic. This particular fleet might not be able to be a field validation partner due to the absolute dire financial situation of the USPS. Good field validation partners and the test agreements with them are the absolute keystone for this entire project. Considering Boulder EV has only had a Notice to Proceed (NTP) for two weeks we think the bailment agreements are coming along very well.
- Vehicle needs assessment 2.1.2 – Boulder EV's staff has performed multiple conference calls with FedEx, UPS and the United States Postal Service with several of the field validation partner's engineers on the calls in order to determine a detail needs assessment. This goes into as granular a detail as preferred tire size and door suppliers and whether or not those minor changes can be accommodated by Boulder EV's vehicles. Boulder EV has not yet encountered a spec from one of the above field validation partners where it would present inordinate difficulty in order to meet the spec. Most partner concerns have to do with interior shelving strength and entrance step height both of which can be accommodated. The three city partners are very happy to be able to receive one delivery van, one flat bed and one service body each. All three cities have expressed enthusiasm for the vehicles exactly as they are without any modifications at all. However Boulder EV plans to perform a detailed needs

assessment with each city during the middle of next month. Such details as to whether a flat-bed is delivered truly flat or with 36 or 48 inch stake sides must be decided. All of these conversations further the quality of the field validation partner relationship and give the project a greater chance of success.

- Aerodynamic analysis 2.1.3 and 2.1.4 Boulder EV engineers have met with and coordinated with the VP of Engineering from Knapheide as well as Knapheide sales engineers. Knapheide is the leading manufacturer of flat bed and service body “drop on” body parts in America. Knapheide has received requests for specific sized flat beds and service bodies from Boulder EV engineers. These requests have been for CAD files so that the “drop-on” bodies can be dropped on to our trucks in Solid Works aerodynamic simulation models. Knapheide engineers have responded with specific drawings and have given us a verbal commitment to get the SolidWorks files to us as soon as practical on their end possibly by the 7th of July. Once the files are in Boulder EV will proceed with the aerodynamic simulations and possible improvements.
- Charge plugs 2.1.5 Boulder EV has met with representatives from Clipper Creek, one of the leading American made charge stations. We have also installed one of Clipper Creek’s charge stations on our factory floor on our final assembly station in order to validate the quality and ease of installation. Boulder EV has added pictures from the install to the Clipper Creek charger installation manual so as to add ease of use for our field validation partners. Boulder EV has also developed a “Fleet Manager EV Charging Installation Check List” complete with tasks and dates so as to explain the necessary steps to install a charger. This document will enable Boulder EV to monitor the progress of the field validation partners in having the chargers ready when the test vehicles are delivered. Both FedEx and the USPS are already familiar with Clipper Creek so that will be an easier implementation.
- In relation to Task 2 Boulder EV has implemented an updated inventory control system capable of tracking parts through-out the ordering, receiving, inspection and stocking process. This will also enable bar code scanning so as to enhance our Quality Control.
- In relation to Task 3 Boulder EV has forged a new relationship with Burt Automotive which has a nationwide history of fleet service and delivery of vehicles. This relationship will help enable Boulder EV to transport our vehicles to Texas quickly and easily.
- In relation to Task 4 Boulder EV has started the programming and implementation of a data logging module with in our internal control unit module. This data logging function will be needed for the recording requirements of this task.

Indicate which part of the Grant Activities as defined in the grant agreement, the above accomplishments are related to:

- All activities listed above are related to Task 1 within the grant except where noted.

Section II: Problems/Solutions

Problem(s) Identified: Report anticipated or unanticipated problem(s) encountered and its effect on the progress of the project

- a) Due to one of the field validation partner's severe financial distress they may not be able to provide the necessary means to even run the wires to install charge plugs. This partner is the United States Postal Service. The United States Government Accountability Office (GAO) released a report on Tuesday May 17, 2011 entitled "United States Postal Service Strategy Needed to Address Aging Delivery Fleet" which outlines the severe financial particulars of this potential field validation partner. In addition many of the automotive engineers are being moved to different divisions or losing their jobs. This makes them less than a reliable test partner. This will most likely dictate moving three of the test vehicles to a different fleet.

Proposed Solution(s): Report any possible solution(s) to the problem(s) that were considered/encountered

- a) FedEx has verbally agreed to accept three additional vehicles for field validation tests. The corporate office in Memphis is enthused about this possibility. Boulder EV has had ongoing progress reports and site visits with the key person from FedEx who is in charge of much of the Texas area since October of 2008. This solution is the quickest and most reliable to implement.

Action(s) Conducted and Results: Describe the action(s) taken to resolve the problem(s) and its effect

- a) Boulder EV is filing an Amendment Request Form in order to officially request the move of the three vehicles from USPS to FedEx as field validation partner. This action if agreed to by TCEQ will allow the grant to move forward quickly and smoothly.

Section III. Goals and Issues for Succeeding Period:

Provide a brief description of the goal(s) you hope to realize in the coming period and identify any notable challenges that can be foreseen

In the coming month of July we hope to have all of the bailment and test agreements signed by both Boulder EV and the field validation partners. We also plan to visit each of the fleet managers in each partner city as well as each corporate fleet in order to complete the needs assessment and have them sign off on the "Fleet Manager EV Charging Installation Check List". With FedEx and UPS we plan to visit their corporate offices in both Memphis and Atlanta in order to make sure the needs assessment is absolutely accurate before we build the test vehicles. We also plan to have the proof of insurance from each field validation partner provided to us. We plan to complete each of the sub tasks within Task 1 during the month of July, as well as having the deliverables in 2.1.6 complete.

Date: 7/1/2011

Authorized Project Representative's Signature

NOTE: *Please attach any additional information that you feel should be a part of your report or that may be required to meet the deliverable requirements for tasks completed during this reporting period.*