

**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: December 2011 **Date Submitted:** 1/9/2012

Section I. Accomplishments

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

- We purchased 3 additional engineering workstations and computer assisted design (CAD) software and hired two additional engineers to start in January 2012.
- To this date we have issued almost 200 purchase orders for demonstration vehicle parts.
- We performed a “vendor scrub” so as to identify parts not yet purchased and we placed all parts correctly into bills of materials for the build process. This is resulting as a “parts catch” for unordered parts. This goes into incredible granular detail such as washers and threadlock.
- We designed ordered and implemented two custom reports from our inventory control software supplier, these reports for “Incoming Inspection” and “Bills of Materials BEV Custom” will help control the build process so as to gain speed and accuracy. The first report will also help determine compliance with specification of incoming parts thus reducing build time due to inaccurate parts.
- We have changed a vendor’s key default setting which was previously resulting in battery management system inaccuracies as witnessed by TCEQ grant manager.
- We have eliminated an automatic reset by our display vendor which was resulting in a charge disable function.
- We have hired new employees for welding and sub-assembly on the battery pack.
- We have negotiated quantity discounts with many vendors before ordering product.
- We have had ongoing engineering conversations and design review for a new motor/controller for the second group of production vehicles.
- We have hosted UPS for a two day design review geared towards making their trucks as close as possible to a product they would like us to commercialize.
- The deck cutting procedures were finalized with cut rates and this resulted in the first five decks being cut and put onto the production line.
- Many of the metal parts which we designed and fed to an outside vendor for production have started arriving.

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

- All of the above tasks are geared towards Tasks 2 and 4.

Section II: Problems/Solutions

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

- a) We have found that many vendors have laid so many workers off over the last two years that they are in general slower to respond and have on hand less stock than usual. This is resulting in delays of parts coming in.
- b) We had to fire a newly hired welder and have since found a replacement.

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

- a) We are trying to schedule parts coming in by lead time and priority of the build. We have also negotiated excellent terms on shipping with both FedEx and UPS so that having expedited shipping is not a significant real cost.

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

- a) We are also developing secondary vendors for many components so that if something is going to take a longer lead time then we have expedited options even if at greater expense. Our implemented inventory control system will also keep track of lead times and secondary vendors within the system's functionality.

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 following month we expect to have the battery packs delivered, at least the first five trucks upright and onto their axles and moved down the line to station 2.
- We also expect to have 5 more decks cut and onto their line in station 1 for a total of 10 trucks on the production line.
- We also expect to have the additional engineering completed for the service body and flat-bed build-outs.
- We also expect to travel to Texas and coordinate with the three City partner fleet managers so as to locate the charge units.

Date: 1/9/2012

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.*