

**Job Title:** Systems Engineer

**Department:** Engineering

**Reports To:** Chief Technology Officer (CTO)

**FLSA Status:** Exempt

**Effective Date:** August 10, 2017

### **Position Overview:**

EnerDel designs, builds and manufactures lithium-ion energy storage solutions and battery systems with a focus on heavy duty transportation, on- and off-grid electrical, mass transit and task-oriented applications. The Systems Engineer is responsible for detailed specifications and integration of Li-Ion battery systems with battery management system (BMS) software requirements

### **Essential Job Functions**

- Adheres to safety standards, with high degree of regard to employee and subcontractor safety
- Assists in performing system-specific training for owner / operator of the lithium power system
- Assists in the assembly, test, and commissioning of all systems as required
- Assists in validation of complete system functionality and troubleshoots problems with other engineering teams to ensure proper operation
- Becomes close with system architectures to respond quickly to change requests, customer issues, and design challenges
- Builds and promotes the company's "team" philosophy and observe respect for the existing cultural boundaries
- Coordinates system documentation releases and engineering change procedures
- Creates flow diagrams, sequence of operations, bill of material, system layouts, and electrical schematics as required
- Creates test & integration plans, user manuals, installation guides, and commissioning plans
- Demonstrates and executes performance in best interest of EnerDel, stakeholders, and customers
- Designs and configures technically complex lithium power systems as defined by internal and customer requirements
- Develops and tests software programs necessary to operate systems per the intent of the project requirements
- Develops program specific design verification plans (DVP) with efficient test timing; coordinate test requests and schedules and sources test facilities; execute function, safety, thermal and robustness battery pack tests in laboratory
- Ensures team's adherence to EnerDel's quality management system
- Identifies and resolves design issues and performs data analysis and generate comprehensive technical reports
- Interacts with customers on a daily basis to support technical issues regarding system start-up, operation, repair, or warranty
- Keeps management and customers informed of project progress and issues
- Manages systems throughout their life-cycle and performing DFMEA, FEMA, 8-D, and other types of analysis when necessary
- Participates in advanced battery controls development and new concept design teams
- Performs value engineering to provide cost effective results while maintaining customer satisfaction
- Supports customers onsite with installations, integrations, commissioning, and troubleshooting
- Supports field service team, providing feedback, diagnostics troubleshooting, and next-steps
- Travel may be required (~15% travel (domestic/international))
- Perform other duties as assigned

This job description is intended to convey information essential to understanding the scope of the job and the general nature and level of work performed by job holders within this job. This job description is not intended to be an exhaustive list of qualifications, skills, efforts, duties, responsibilities or working conditions associated with the position.

### Required Knowledge, Skills, & Abilities:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skills, and ability required.

- Preferred:

- Bachelor's Degree in Electrical Engineering, Mechanical Engineering or related field
- 5-7 years of experience in electrical, software, and control systems engineering
- Proficient with CAN (J1939, 2.0B, other variants), Modbus, and Ethernet/IP communications protocols
- Working knowledge and experience in high voltage electric vehicle (EV) and grid energy storage systems (GESS)
- Working knowledge and the ability to work on high-voltage systems

**Supervisory Responsibilities:** None.

### Physical Requirements/Hazardous Working Conditions:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential work functions.

#### Physical Demands

- Standing
- Walking
- Sitting
- Lifting
- Carrying
- Pushing/Pulling
- Climbing
- Balancing
- Stooping
- Kneeling
- Reaching
- Handling
- Feeling
- Talking
- Eye/Hand/Foot Coordination
- Vibration
- Typing/Keyboarding

#### Vision/Sight/Hearing

- Vision-Far Acuity
- Vision-Near Acuity
- Vision-Depth Perception
- Vision-Peripheral
- Color Vision
- Listening/Hearing

#### Physical Strength

- Sedentary Work
- Light Work
- Medium Work
- Heavy Work
- Lifting up to 10 lbs.
- Lifting up to 25 lbs.
- Lifting up to 50 lbs.
- Lifting over 50 lbs.

#### Environmental Conditions

- Temperature Changes
- Infectious Disease
- Humid
- Noise

- Hazards
- Wet
- Hazardous Chemicals
- Blood/Body Fluids

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