



# Mechanical Engineer

Company: **Energy Storage Systems**

Location: **Portland, OR**

## Company Profile

Energy Storage Systems (ESS) is a fast-growing, venture-backed, clean technology start-up, located in Portland, OR. ESS has developed an advanced flow battery technology for commercial, industrial, and utility applications. With a team that boasts decades of experience in distributed power generation and energy storage technologies, ESS has developed an extremely cost-effective energy management system that combines a safe, abundant and non-toxic iron electrolyte with our patented flow cell design. This combination of high performance with low cost means that ESS's technology is ideally suited for applications that range in size from retail energy management to utility-scale renewables integration.

## Position Profile

ESS is seeking a dynamic Mechanical Engineer with a strong background in mechanical design, Thermodynamics, fluid flow and structural analysis. The role will focus on the packaging of ESS' advanced battery technology to ensure product life, cost and efficiency. The successful candidate will have excellent project management skills and an ability to manage multiple projects effortlessly. Candidates with knowledge of large and complex industrial products, containerized manufacturing & transport are highly desired. Experience in battery, fuel cell technologies or power generation systems are helpful.

The ideal candidate will have a passion for sustainability and the environment, will thrive in a fast-paced entrepreneurial setting, be self-motivated and have an interest in disruptive, cutting edge technology. Someone who understands the culture, the rigor and the challenges of a start-up environment.

## Responsibilities

- Product development through research, design and evaluation of mechanical systems and processes utilizing engineering principles.
- Lead and provides technical quality review of the development and documentation of mechanical and fluid systems and thermal environment to establish the system design
- Develop updates and redesigns of existing processes and related equipment that are feasible to manufacture or modify; accompanied by analysis, supporting information and recommendations.
- Actively communicate specific work requirements or needs to internal functions, such as purchasing and manufacturing to ensure expectations are understood as defined by engineering specifications.
- Design, develop, analyze and document process designs which meet the cost, reliability,

- manufacturability and safety requirements (P&ID, Functional Requirements, etc)
- Interface with suppliers, manufacturing, sales and marketing in the product development process.
- Utilize 3-D CAD system, AutoDesk Inventor, to prepare detailed drawings of multiple views and apply mathematics and physics to compute load capacities, dimensions, material usage and Bills of Materials (BOMs).
- Conduct research to test or analyze the design, operation and performance of equipment.
- Prepare performance requirements for equipment and systems.
- Ensure engineering design and standards documentation is complete, accurate and sufficient in support of manufacturing and quality assurance activities, and compliant with customer specifications and regulations.
- Performs other related duties as assigned for the purpose of ensuring the efficient and effective functioning of the project team.
- Interface with and provide product specifications to suppliers.

### **Requirements**

- BS Engineering in Mechanical Engineering. MS preferred
- 5 years' experience in a Mechanical Engineering Design
- Proven proficiency in 2-D & 3-D CAD systems (i.e. AutoCAD & SolidWorks) for design, documentation and fabrication.
- Must be comfortable with Thermodynamics, fluid flow and structural analysis
- Must be a "self-starter" and follow tasks through to completion with little guidance.
- Must be able to work in a Team environment to collectively solve problems.
- Must be able to multi-task several projects and prioritize workload to meet business specific deadlines
- Experience with fluid flow and structural analysis
- Experience in packaging assemblies
- Comfortable in fast-paced, collaborative work environment.
- Experience commercializing new technologies in a production environment is preferred.
- Must have an in-depth understanding and application of quality principles, concepts, practices, and standards. (ASME 14.5)
- Strong communication and presentation skills, affable, and demonstrated maturity and professionalism
- Able to work in a cross-functional and geographically dispersed team environment.
- Experience interacting with Lab and Engineering operations.
- Experience commercializing new technologies in a production environment is preferred.
- U.S. Citizenship or permanent residency required.