
R&D Engineer Job Description

1.0 About ESS, our team, and what we are looking for:

Energy Storage Systems (ESS Inc) is a fast-growing, venture-backed, multi patented, clean technology start-up, located in Wilsonville, OR. ESS has developed an extremely cost-effective energy management system that combines an environmentally safe, abundant and non-toxic iron electrolyte with our patented flow cell design. Our advanced flow battery technology combines high performance with low cost, renewable integration designed for commercial, industrial, and utility applications.

Our team boasts decades of experience in distributed power generation and energy storage technologies. We are team building a disruptive, cutting edge technology. We are looking for motivated, hard-working, like-minded people to join our team of individuals who have a passion for sustainability, the environment, and who thrive in a fast-paced entrepreneurial setting. This position involves close interaction with numerous engineering disciplines. Applicant must be comfortable working in a team environment that is fast paced and dynamic. A strong commitment to quality and continuous improvement is required.

2.0 Position Profile:

ESS is looking for a motivated and versatile R&D Engineer to join our team. Our current program scope involves the design, development and evaluation of a new generation power module, and electrolyte management system, to characterize and improve electrolyte chemistry.

3.0 Primary Responsibilities

- Responsibility in developing and validating low cost bipolar plates and membranes for All-Iron Redox Flow Battery.
- Responsible for optimizing electrolyte chemistry for efficiency and durability.
- Assist in design validation of innovative electrolyte management subsystems.
- Design, construct and perform reliability tests on various key system components
- Build and test flow batteries, and electrolyte management system, of various sizes and capacities using developed materials and chemicals.
- Able to troubleshoot, collect and analyze data and present test results to the engineering team.
- Run design validation tests and perform analyses afterwards to guide design goals for improved battery performance and reliability.
- Develop and optimize chemical processes for flow batteries of different scales.
- Interact with manufacturing engineer to scale up production of the developed new generation membranes.

4.0 Proficiencies

- Must be able to multi-task several projects and prioritize workload to meet business specific deadlines
- Working experience with battery or fuel cell systems is desired.
- Experience in managing R&D lab is a plus.

- Good interpersonal and communication skills to work effectively with a small, dynamic team responsible for product development.
- Comfortable in a fast-paced, collaborative work environment.
- Exercises judgment setting work priorities and identifies next steps.
- Requires minimal oversight.

5.0 Additional Requirements & Qualifications

- Legally authorized, U.S. Citizenship or permanent residency. – **See Note:**
- Ability to fluently read and write English, comprehend, and follow verbal and written instructions.
- Ability to follow job required Standards and Safety Protocols, per pre-defined processes.
- Must be able to wear Personal Protection Equipment according to OSHA rules and regulations.
- Must be willing to submit to a Background Check and a Drug Test according to the BOLI rules and Regulations.
- Regular, consistent, and punctual attendance is required.

Experience Desired

- Experience in a manufacturing environment with dynamic daily priorities.
- Experience in new-product introduction and scale to manufacturing.
- Quality system awareness.
- Experience with the properties of common plastics used in manufacturing.
- Knowledge of ISO a plus.

Education

- MS or higher in ChE, Chemistry, Mechanical Engineering or Material Science is required.
- Electrochemistry skills and knowledge are must - wet chemistries and reactions, interactions, and material behaviors.
- Demonstrated knowledge of the chemical process engineering principals in a fuel cell or battery industry preferred.
- Intermediate to advanced shop math. Knowledge of English/Metric system measurement.

Physical Demands

- Frequent to constant movement throughout the day.
- The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.
- While performing the duties of this job, the employee is occasionally required to stand; walk; sit; use hands to finger, handle, or feel; reach with hands and arms; climb or balance; stoop, kneel, crouch, or crawl and talk or hear.

- Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and ability to adjust focus.
- The employee must occasionally lift and/or move up to 50 pounds.

Work Environment

- The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.
- The noise level in the work environment is usually moderate. Warehouse/ manufacturing environment.

Other Duties

- Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities, and activities may change at any time with or without notice.

Job Type: Full-time

Note:

As an equal opportunity employer, we are open to considering every qualified candidate who is eligible and legally authorized to work in the United States on a full or part-time basis, and who does not require a visa sponsorship or who is of H1B1 status.

6.0 What ESS Offers

Benefits:

- In addition to the value of working with and helping grow a global reaching clean technology, headquartered in the middle of the beautiful Pacific Northwest valley, ESS offers a competitive benefits package: Company assisted Health insurance, Approved PPE Reimbursement, Medical & Dental; FLEX spending account; 6 paid holidays; 401K, a generous PTO accrual; and public transportation assistance.

· **Pay Dependent on Experience:**