

## Product Design: Mechanical Engineer

Location: (Arlington, VA, or Continental US)

### ABOUT FLUENCE

Fluence, a Siemens and AES company, is the global market leader in energy storage technology solutions and services, combining the agility of a technology company with the expertise, vision and financial backing of two well-established and respected industry giants. Building on the pioneering work of AES Energy Storage and Siemens energy storage, our goal is to create a more sustainable future by transforming the way we power our world. Providing design, delivery and integration, Fluence offers proven energy storage technology solutions that address the diverse needs and challenges of customers in a rapidly transforming energy landscape.

Fluence currently has more than 2.4 gigawatts of projects in operation or awarded across 24 countries and territories worldwide. We topped the Navigant Research utility-scale energy storage leaderboard in 2018 and were named one of Fast Company's Most Innovative Companies in 2019. In 2020, our sixth-generation Tech Stack won Commercial Technology of the Year at the 22<sup>nd</sup> annual S&P Global Platts Global Energy Awards.

### Leading

Do others come to you for your subject matter expertise? Are you excited by the challenge of working in a start-up atmosphere with a purpose?

The Mechanical Engineer will play a critical role in helping Fluence deliver the next generation of energy storage technology. The Mechanical Engineer will primarily engage in the ongoing development of Fluence's energy storage products, focusing on the mechanical design. Fluence deploys lithium-ion batteries in utility scale projects, typically inside of metal enclosures. The work will be focused on systems related to the structural design of the enclosures; internal equipment layout for ease of manufacturing, installation, and maintenance; cooling and fire suppression system design; and design to meet various published technical standards and codes. Fluence is looking for an experienced mechanical engineer who can tackle difficult technical problems and perform design work. The ideal candidate will have a broad mechanical engineering background as well as strong proficiency in 3D CAD and finite element analysis. Experience with cooling systems, both air cooling and liquid cooling, is also beneficial.

## Responsible

Fluence is defined by its unwavering commitment to safety, quality, and integrity. We take personal ownership in what we do, developing trust in our relationships with internal and external stakeholders. We firmly believe in having honest, forthcoming, and fair communications.

The key roles and responsibilities of the Mechanical Engineer include:

- Develop mechanical design of Fluence battery system products from conceptual stage to final design, testing, and manufacturing while meeting difficult requirements for size, environmental conditions, maintainability, reliability, long lifetime, and cost.
- Defining design, construction, operation and maintenance goals for products.
- Design and develop product for usability, mass manufacturing and ease of deployment.
- Use solid model software packages such as SolidWorks to develop 3D CAD models of equipment enclosure structures and internal component layouts. Perform FEA analysis to determine compliance to seismic requirements, shipping standards, and other mechanical requirements (i.e. wind loading, lifting by crane, snow loading, etc.)
- Perform CFD analysis, fluid flow analysis, and thermal heat transfer analysis for air cooling and/or liquid cooling systems for the batteries.
- Manage external resources such as consultants or test labs in testing various aspects of the product such as environmental testing, seismic testing, and arc flash testing.
- Review quality assurance processes of contract manufacturers and provide mechanical engineering expertise to Procurement team in identifying new suppliers.
- Collaborate with other teams including Electrical Engineering, Software Development, Logistics, Procurement, Project Engineering, and Sales on ensuring successful deployments of Fluence products in large-scale energy storage projects.
- Present design solutions to key stakeholders, defending design decisions, incorporating design feedback into the design cycle.
- Building critical relationships and leveraging expertise and capabilities from inside and outside the organization to deliver results and create value.
- Work with our Product / Sourcing teams and our vendors to ensure product design can be commercialized for production to meet our business objectives.
- Provide technical consultation to other departments and colleagues.
- Demonstrate Fluence values.
- Willingness and ability to travel 20% - 30%

## Agile

Here at Fluence, we strive to continuously improve, be intellectually curious and be adaptive to our customers and employee's needs. Collaboration is key, both in our partnerships with our customers, and with each other. Fluence prioritizes the most critical efforts that allow for the greatest impact.

- 5+ years experience
- Experience with developing products from the concept stage through prototyping, final design, and manufacturing
- Highly experienced with solid model design software (preferably including SolidWorks), including performing structural FEA analysis
- Takes individual initiative and works with minimal supervision while being a collaborative team player. Possesses sound business judgment.
- Has excellent English verbal and writing skills.

The additional qualifications below are preferred but not required:

- Experience performing mechanical design of electrical power equipment, such as electrical panels, power converters, or control panels.
- Experience with design of air and liquid cooling systems, including fan sizing, CFD analysis, pump sizing, pressure drop analysis, and component selection.
- Experience with seismic analysis and familiarity with IEEE693 and/or ASCE 7-16 requirements
- Experience with utility scale battery energy storage systems
- Proficiency in Korean or Chinese is a plus

## Fun

Working on transforming a fundamental part of our society is exciting and fulfilling. It requires creativity, diversity of ideas and backgrounds, and building trust to effect change and move with speed. We respect our coworkers and customers. We listen to what others have to say, and we are inclusive.

## GET IN TOUCH

Please send your resume and cover letter to [careers@fluenceenergy.com](mailto:careers@fluenceenergy.com).

Fluence IS AN EQUAL OPPORTUNITY EMPLOYER and fully subscribes to the principles of Equal Employment Opportunity to ensure that all applicants and employees are considered for hire, promotion, and job status without regard to race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, marital or familial status.