



## **SR. ENGINEER, HIGH VOLTAGE ENGINEERING**

*Woburn, MA*

Giving everyone in the world access to clean, reliable, affordable energy will require substantial expansion of global electricity transmission networks. VEIR is developing a new generation of High Temperature Superconductor (HTS)-based transmission lines, enabling long distance, reliable, low loss, cost-effective power transfer in far smaller right-of-ways. VEIR's innovations overcome the main barriers to transmission expansion, enabling the world to access the very lowest cost renewable power.

The **Head of High Voltage Engineering** will assist in the design, development and testing of VEIR's high voltage equipment and subsystems (including substation equipment, power cables, cable splices, cable terminations, and dielectric insulation systems). This position will have lead responsibility over the development of one or more HV subsystems.

### **DUTIES & RESPONSIBILITIES:**

- Provide engineering expertise in the domains of high voltage engineering and insulation coordination
- Lead the development and utilization of engineering analysis, models, and simulation tools to improve the performance, reliability, lifetime, and cost of VEIR high voltage subsystems and dielectric insulation components
- Lead the iterative design, build, and experimental testing of VEIR high voltage electrical subsystem and component prototypes
- Lead the review, interpretation, and visualization of experimental data; use data to validate and improve electrical designs and strategically plan subsequent prototype design iterations and experimental campaigns
- Mentor junior engineers; contribute to building high performance team culture and work processes
- Collaborate with broader VEIR team to integrate electrical system designs and high voltage engineering requirements with broader VEIR engineering and product development efforts, including thermal system designs
- Identify, evaluate, negotiate, and liaise with subcomponent suppliers, academic collaborators, external consultants
- Participate in documenting innovations and filing patent applications for key VEIR innovations

### **MINIMUM EDUCATION/EXPERIENCE:**

- Bachelor's degree in electrical engineering, applied physics, or related field with at least 3 years high voltage engineering experience
- Demonstrated creativity and experience in design of high voltage, power transmission or distribution systems and components
- Strong background in experimental testing of high voltage equipment designed for electricity transmission or distribution systems
- Specialized technical experience applicable to the position includes:
  - Experience in designing and testing high voltage equipment and components, including dielectric insulation systems
  - Experience applying high voltage engineering standards and testing requirements in the design of new products
  - Experience integrating high accuracy sensors and data collection systems with high voltage testbeds
  - Hands-on experience using engineering analysis tools for high voltage system design

### **PREFERRED EDUCATION/EXPERIENCE:**

- MS or PhD in electrical engineering, applied physics, or related field with emphasis in high voltage engineering with at least 5 years high voltage engineering experience
- Strong background in designing and testing high voltage equipment and systems
- Demonstrated success contributing to the commercialization of new high voltage hardware products

### **REQUIRED SKILLS:**

- Ability to build and maintain detailed understanding of VEIR technology including design specifications and constraints
- Ability to specify, select, and/or design high voltage components and systems, including pole attachments, cable terminations, cable insulation systems, and/or cable splices
- Ability to create new system designs and/or improve existing system designs with a focus on achieving increased high voltage performance, improved reliability, reduced cost, and/or improved manufacturability
- Strong verbal and written communication skills; Ability to clearly communicate goals, findings, and issues
- Ability to work in a fast-paced, team-oriented environment
- Ability to work with minimal supervision; self-motivated and directed