



Thermal Battery Corporation

Senior Electrical / Controls Engineer

Thermal Battery Corporation (TBC) is a start-up company that is developing and commercializing an energy storage technology to enable the utility grid to operate fully on renewable energy (visit: www.thermalbattery.com for more details).

The technology was successfully developed over the last 10 years at the Massachusetts Institute of Technology (MIT) in Professor Asegun Henry's lab. Thermal batteries operate by storing heat in low-cost graphite blocks at extremely high temperatures. Liquid metal is pumped, and used to transport heat between subsystems, while thermophotovoltaics (TPV) are used to generate electrical power on demand. Thermal batteries provide roundtrip efficiencies of ~ 50%, with an installed cost ~ 30X cheaper than Li-ion.

TBC's ambitious goal is to significantly contribute to the fight against climate change by producing low-cost, large-scale energy storage facilities. TBC offers exciting opportunities to strong individuals seeking an exciting work environment. TBC has a culture of teamwork, continuous innovation based on first principles/physics, and fearlessness in tackling challenging problems. TBC is looking for highly skilled, experienced, and motivated individuals who share our passion for mitigating climate change.

Job Description

We are looking for a Senior Electrical/Controls Engineer to join the Thermal Battery Engineering team, a highly motivated group responsible for designing a 1 MWh thermal battery "Pilot" system that will be the standard building block of TBC's commercial product. This position will own a critical part of the "Pilot" system and will work closely with a group of talented engineers to optimize the design for manufacturing, assembly, and battery performance. The ideal candidate will create innovative electrical and controls solutions designed for robust industrial products.

Your Role:

- Lead the electrical design and controls layout for thermal battery "Pilot" system.

- Strong aptitude to create state-of-the-art controls and automation concepts, select key components, closely collaborate with vendors and partners.
- Hands-on experience in Industrial Control Systems and Instrumentation.
 - Experience with Rockwell Automation, Siemens, GE, or similar platforms preferred.
 - Familiarity with high-power, low-voltage systems is preferred.
 - Experience with supplying electrical power to heating elements is preferred.
 - Experience integrating thermocouples, pyrometers, flow meters, valves, and gas delivery systems is strongly preferred.
- Demonstrated ability to write conceptual outlines, diagrams, and specifications.
- Closely collaborate with TBC engineering team.
- Responsible for research, systems integration, preparation of engineering drawings, and coordination of design activities with System Engineering to ensure that designs meet requirements at minimum cost and according to schedule requirements.

Qualifications:

- BS or MS required in Electrical Engineering.
- (4+) years in industrial controls and automation.
- Experience creating controls /automation concepts and then implementing concepts from the “Pilot Unit” to full-sized industrial installations.
- Expert in Ladder Logic and HMI/SCADA applications. Experience with high-power, actively cooled electrical hardware.
- In-depth knowledge of basic motor control, DC drives, linear actuators, and control sub systems. Experience or familiarity with PV, CPV or TPV systems on moving platforms. Experience with high-temperature systems is also preferred.
- Electro-mechanical system debugging and troubleshooting.
- Exceptional knowledge of PC operating systems and industrial networking.
- Strong CAD skills.
- Excellent communication skills.

Familiarity with glovebox feedthrough systems or equipment designed to operate in controlled environments is a plus.

TBC is committed to fight climate change, and it is also committed to offer equitable compensation, stock options, and a competitive benefits package.

Please send resume to: hr@thermalbattery.com

Human Resources
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