



## **JOB POSTING (10/26/09)**

### **POSITION: POWER ELECTRONICS ENGINEER (Boulder, Colorado)**

Sustainable Automation Inc., based in Boulder, Colorado, at the foot of the Rocky Mountains, is a small and growing renewable energy systems integration company. We are especially active in designing components and control systems for wind-diesel hybrid power systems, the technology of choice for electrifying off-grid communities and remote industrial sites in windy regions both in the US and abroad. We have ongoing projects in Alaska and various prospects in the continental US, the Caribbean, and the Pacific Islands.

Sustainable Automation Inc. has a current opening for a very bright and highly motivated Electrical Engineer who can function well in a small entrepreneurial environment. The successful candidate will have a MS or PhD in Electrical Engineering with an emphasis on Power Electronics. Ideally, he or she will have a deep interest in renewable energy and sustainability and is seeking employment that offers the opportunity to make a positive difference in the world. He or she will play a major role in the ongoing development of products for the renewable energy industry. This position requires a mature and versatile engineer that enjoys challenges and is both a team player and capable of independent work.

### **Position Description**

The person we are seeking will primarily be responsible for the hardware and software design of a large bidirectional energy storage power converter we are developing for use in our wind-diesel village power projects. Our design will be based on commercially available IGBT power modules with some of the low level software already completed. This position offers opportunity for professional growth as we are continually identifying new potential products and systems.

Duties may include the following:

- Power converter design, fabrication, and testing
- Control system design, fabrication, and testing
- Programmable automation controller programming in LabVIEW
- Operator interface programming
- Field commissioning and troubleshooting of control systems
- Business development and proposal writing
- Project engineering (work with customers to define needs and develop system specifications)
- Develop and maintain product documentation (drawings, parts lists, user manuals)
- Computer modeling of power systems to assess dynamic stability

Willingness to pitch in and cheerfully accept new task assignments, even if outside one's "job description", is essential.

## **Required Qualifications**

- MSEE or Ph.D.EE in power electronics or electric power engineering.
- Good hands-on electrical and mechanical skills (wiring, control panel fabrication and assembly, etc.)
- Excellent written and oral communication skills (presentations, written reports, correspondence, etc.)
- Strong computer programming skills and significant LabVIEW programming experience
- LabVIEW Associate Developer certification (minimum)
- Strong math and analytical abilities
- Strong interest in renewable energy and distributed generation
- Ability to work independently and without close supervision
- Resourceful, able to acquire new knowledge and skills through self-study
- Ability and willingness to travel for extended periods (e.g. 3 weeks), including international travel, sometimes involving rustic living conditions.
- Must be able to independently learn, without training classes, how to effectively use unfamiliar control programming languages and other software tools
- Pleasant disposition and good people skills.

## **Desired Qualifications**

- Passed EIT exam.
- Basic AutoCAD or other CAD proficiency (electrical schematics, panel layouts, etc.)
- PE license in controls or electrical engineering
- PLC industrial control programming experience
- Familiarity with Ethernet networking, IP addressing, etc.
- Familiarity with industrial communication protocols (Modbus, CAN bus, etc.)

## **Compensation and Benefits**

As a young and growing company, Sustainable Automation strives to offer reasonable salaries commensurate with experience and a good benefits package that covers the essentials. More importantly, we offer a ground-floor opportunity to participate in the growth of the company. In addition, of course, we offer interesting and varied work, a fantastic place to live, and an opportunity to make a difference by doing something that is good for the planet!

- 3 weeks paid vacation
- Sick time
- Paid holidays
- Worker's Comp
- Pre-tax Employee Savings Plan (SEP-IRA)
- Kaiser Permanente HSA Health Plan for individual and family coverage
- Equity Participation (company stock)

**How to Apply**

Please send cover letter and resume to [careers@SustainableAutomation.com](mailto:careers@SustainableAutomation.com). No phone calls please. Additional materials (e.g. references, university transcripts, writing samples, etc.) may be required later if we are interested in you for a position. Please indicate where you saw this posting.