# **Technical Assistance Request**

## **Functional Testing for Solar-Related Electronic Product**

We plan to use the NREL Science and Technology facility to fully test the function of AC Diode. This includes testing in a thermal chamber.

### **National Electric Code Compliance**

We plan on using the resources of John Wiles, a rich source of information regarding solar power and the National Electric Code.

# **Nationally Recognized Testing Laboratory and FCC Preparation**

Looking for someone with experience in conducting test suites with Nationally Recognized Testing Laboratories (NRTL) and certifying products. (ETL, UL, CSA) This also applies to the Federal Communications Commission as out device will use wireless communication.

### **Industry Contacts Needed:**

#### **Circuit Breaker Manufacturer**

We want to discuss including AC Diode functionality in a circuit breaker. Essentially, this would be a back feed only circuit breaker for use with solar and combustion generation. (Square D, Siemens, GE)

### **Home Power Monitoring (and Control)**

Home power monitoring (Sense, Emporia, Eyedro, Effergy) consists of related building blocks. Our AC Diode functionality could be economically added to these types of products. Home power control (e.g. Span) can also benefit from AC Diode functionality since they provided a controlled relay for every circuit breaker position.

### **Cloud Servers and Cellular Communication**

Any IOT device such as ours needs server-based computing to provide remote monitoring and control (Solarman, Shine Monitor, etc.) . Cellular is of interest because it may smooth the customer interface by eliminating the need to work with the building Wi-Fi.

### **Smart Outlets**

Smart outlet technology is related to AC Diode in that it measures power (but not power direction) and includes a 15 or 16 A relay.

### **Homeowner-Installed Solar and Electrical Storage**

We want to present our AC Diode technology to entities focused on homeowner-installed solar and batteries for inclusion into their product offering or kits. (Legion, Orison, WholesaleSolar)