

Technical Assistance Request Form - RPCE

Our Bi-Directional Inverter aims to bring a significant shift to the solar industry. As we embark on this ambitious journey, we recognize the challenges ahead and the need for specialized expertise in crucial domains.

Manufacturing

Portal's commitment to superior manufacturing standards is unwavering. We are seeking a partnership with manufacturing entities that mirror our values of reliability, safety, product aesthetics, and transparent communication.

- Scalability and Consistency: It's essential that our manufacturing partner can consistently handle vast production volumes, ensuring minimal deviations, quality drops or delays.
- Quality Control: We seek partners equipped with state-of-the-art quality control and assurance mechanisms. Regular inspections, batch testing, and defect analysis will be essential to maintain the product's standards.
- Material Sourcing: Assistance in procuring high-quality, sustainable materials that are both eco-friendly and cost-effective will be invaluable.
- Prototyping: Rapid prototyping capabilities will enable us to test, refine, and improve the design consistently and efficiently.
- Safety Protocols: It's imperative that our partner prioritizes safety, engaging in discussions to evaluate design vulnerabilities and proposing mitigation strategies.

Lab Testing

With the inception of our prototype, rigorous, multi-faceted testing becomes a priority.

- Real-time Energy Flux: Advanced labs capable of studying energy transitions, from solar panels to EVs and from EVs to domestic grids (V2H and V2G), will be essential.
- Durability and Stress Testing: We need facilities that can simulate various environmental conditions to ensure our product's resilience and longevity.
- Electromagnetic Compatibility (EMC) Testing: To ensure that our product operates without causing electromagnetic interference or being susceptible to it.
- Certification and Compliance: Assistance in obtaining necessary certifications and ensuring our product adheres to national and international standards.

Software Development

The software facet of our solution requires a deep dive, and we anticipate the need for a comprehensive suite of services.

- **Proprietary Software Solution:** Development of a robust platform to track bidirectional energy flow and offer homeowners an intuitive user interface.
- **User Experience (UX) and User Interface (UI) Design:** Collaborating with experts to ensure that the software is not just functional but also user-centric.
- **Data Security:** As data flow and storage are integral, we require assistance in implementing best-in-class data encryption and security protocols.
- **Integration with IoT Devices:** Our product could benefit from integrating with other smart devices in a home, requiring software compatibility solutions.
- **Cloud Connectivity:** Enabling remote access and control for homeowners and ensuring smooth cloud connectivity for data storage and analytics.

By addressing these detailed requirements, we believe that our Bi-Directional Inverter can seamlessly transition from concept to a widely-accepted, market-ready product.