



U.S. DEPARTMENT OF ENERGY

American-Made Solar Prize Round 7

Ready! Contest Submission

Technical Assistance Request

The **Nanoinverter** team has been diligently working on the development of a nanoinverter, which promises to be a game-changer in the field of renewable energy. The nanoinverter, a compact and highly efficient device, has the potential to significantly reduce the cost of residential solar installations.

There are several areas which we will need help

- 1) Nanoinverter code: help our team to understand all applicable code for grid connection for the intended market (residential and commercial)
- 2) Nanoinverter reliability assessment: help the team performance reliability assessment of the design or accelerated test of prototype so we can meet or exceed the current market competitors (Enphase, SolarEdge).
- 3) PV panel integration: The proposed Nanoinverter can be designed to be very small so we plan to integrate into the junction box (as shown in Figure 1.). However, we recognize that a successful integration of this innovative technology with PV panels requires specialized expertise. We are seeking your technical assistance to address the following key aspects of the productization:

3.1. Help our team develop a robust and efficient mounting system and enclosure for the Nanoinverter suitable for mounting on the back of PV panels. Ensures that this design can work with various types of PV panels while considering factors such as weather resistance, durability, and ease of installation.

3.2 Connect our team with domestic PV panel manufacturers so we can discuss this concept with them and seek partnership with these vendors to introduce Nanoinverter integrated AC panel products.

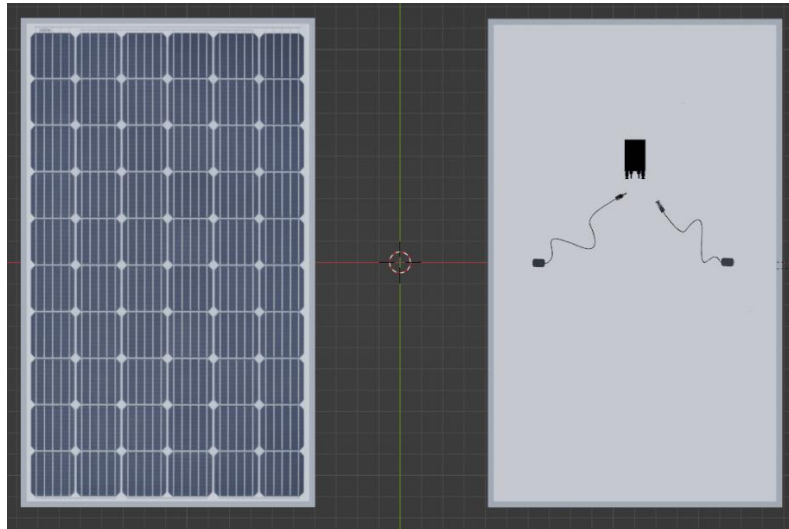


Figure 1: Nano-inverter integrated with the PV panel

4). Marketing Strategies for Scalability:

The success of any innovative technology lies not only in its technical prowess but also in its market adoption and scalability. We recognize the need for a comprehensive marketing strategy to successfully introduce the nano-inverter to a broader audience. We seek your expertise in devising effective marketing strategies to convert this innovation into a scalable product. Key areas of focus include:

- A. **Branding and Positioning:** Creating a strong and compelling brand identity for the nano-inverter, positioning it as a revolutionary solution that addresses the pain points of traditional PV systems.
- B. **Distribution Channels:** Identifying and establishing partnerships with distribution channels and retailers to ensure widespread availability of the nano-inverter.
- C. **Digital Marketing:** Implementing a robust digital marketing strategy, including social media, email marketing, and search engine optimization, to reach and engage potential customers effectively.
- D. **Regulatory Compliance:** Ensuring that the nano-inverter complies with all relevant regulations and certifications, and assisting with the documentation required for approvals.
- E. **Pricing and Business Models:** Advising on pricing strategies and business models that maximize profitability while remaining competitive in the market.

We believe that with your technical expertise and marketing insights, we can take our nano-inverter innovation to the next level and contribute significantly to the renewable energy revolution. We would appreciate the opportunity to meet and discuss this request further, exploring potential collaboration and partnership opportunities.