Solar Earth Inc.

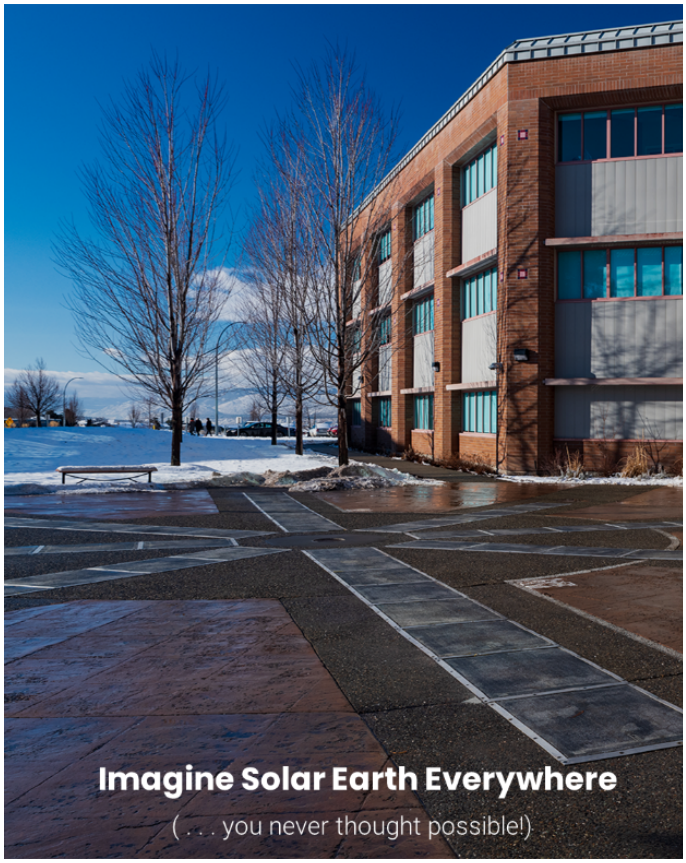
Paving integrated PV systems

Marine Docks

American-Made Solar Prize Round 7

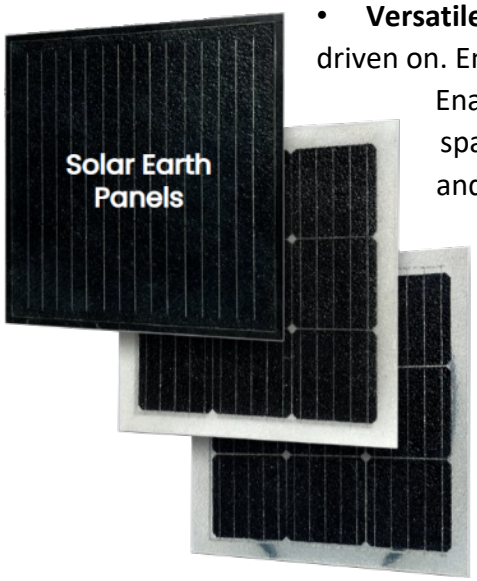
Ready! Contest Submission

Technical Assistance Request



Solar Earth Inc. has developed the world's toughest solar panel solution. Innovative Solar Panel Solutions that are robust, lightweight, and adaptable solar paving panels designed for unconventional locations.

- **Tough**: Able to withstand a weight of 5 tons, ~42x that of a traditional solar module
- **Safe**: Has superior anti-slip surface grip, ~20% higher vs. the typical surrounding pavement and 200% higher than traditional solar
- **Efficient**: Output generation efficiency of 15% in real world applications



- **Versatile**: Solar Earth's panels can be walked on, biked, on or even driven on. Enabling previously unimaginable of solar installation. Enabling renewable energy generation in unconventional spaces, from sidewalks, to roadways to lightweight rooftops and hybrid projects.

Trafficable Solar Docks

Solar Earth is developing a turnkey solution for widespread deployment in marine applications such as docks, piers, and industrial ports.

Challenges

Solar Earth is committed to addressing global energy needs, with a robust solution(s) that integrates with existing infrastructure. Marine applications present some unique challenges due to extreme environments and mechanical loads. Paving integrated PV solutions To ensure rapid deployment Solar Earth will:

- Optimized integration of Solar Earth tough solar panels with common dock and pier infrastructure
- Addressing unique environmental challenges for marine applications, such as developing solutions for high saline environments
- Innovate improved tough solar panels to support marine applications, such as development of beach friendly anti-slip layers.

Potential Partners

- **NREL Solar Radiation Research Laboratory** provides comprehensive solar radiation measurements and characterization. This facility utilizes advanced instruments and techniques to accurately measure solar radiation levels, spectral content, and other relevant data.
- **NREL Materials and Component Testing Labs:** These laboratories could potentially be used to evaluate the durability, mechanical properties, and resistance to environmental factors of the materials used in PIPV panels. Tests such as accelerated aging, stress testing, and weathering simulations can provide insights into the long-term performance of these panels.

- **American-Made Network** partners with expertise in battery storage, EV, or marine infrastructure/applications, or solar integrators would be ideal partners.