Solar Earth Inc.

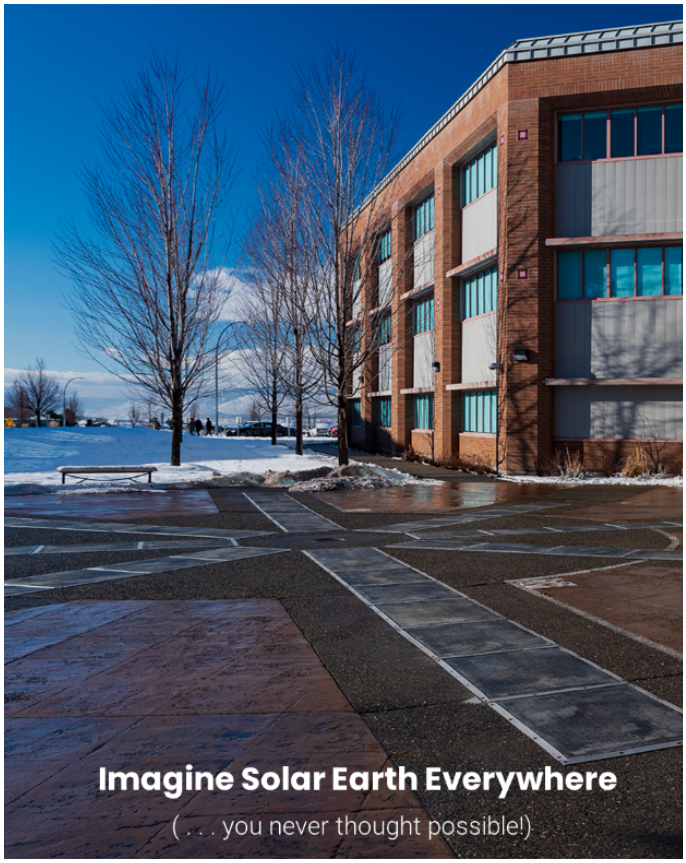
Paving integrated PV systems

Solar Sidewalks

American-Made Solar Prize Round 7

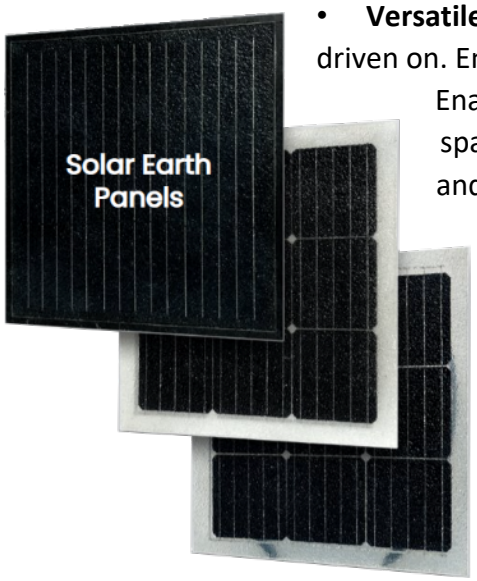
Ready! Contest Submission

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.

Solar Paving Integrated Sidewalks

Solar Earth is developing a turnkey solution to integrate it's innovative tough solar panels with smart systems that enable unique traffic and pedestrian safety improvements

Challenges

Everyday people take a small yet measurable risk as they drive, bike, or walk to their homes, work, or commercial centers. As Solar Earth solarizes the world's infrastructure with clean robust solar power, there is the opportunity to mitigate these risks by integrating additional lighting, sensors, or communications devices into our solar paving solutions. Solar Earth is in the process of developing solutions that will:

- Innovate and optimize our tough solar panels to support a wide variety of sensor and communication electronics.
- Utilizing our solarized infrastructure to address unique environmental challenges, such as providing de-icing solutions or hurricane resistant power sources.
- Integrate with larger traffic and pedestrian systems, powering cities' and facilities' smart safety infrastructure, such as a smart crosswalk.

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 IoT solution provides, or solar integrators would be ideal partners.